



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 49**

**[EPA-R08-OAR-2012-0479; FRL-9789-3]**

**Approval and Promulgation of Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa, and Arikara Nation), North Dakota**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The EPA is taking final action to promulgate a Reservation-specific Federal Implementation Plan in order to regulate emissions from oil and natural gas production facilities located on the Fort Berthold Indian Reservation in North Dakota. The Federal Implementation Plan includes basic air quality regulations for the protection of communities in and adjacent to the Fort Berthold Indian Reservation. The Federal Implementation Plan requires owners and operators of oil and natural gas production facilities to reduce emissions of volatile organic compounds emanating from well completions, recompletions, and production and storage operations. This Federal Implementation Plan will be implemented by the EPA, or a delegated tribal authority, until replaced by a Tribal Implementation Plan. The EPA proposed a Reservation-specific Federal Implementation Plan concurrently with an interim final rule on August 15, 2012. This final Federal Implementation Plan replaces the interim final rule in all intents and purposes on the effective date of the final rule. The EPA is taking this action pursuant to the Clean Air Act (CAA).

**DATES:** This final rule is effective on [FEDERAL REGISTER: insert date 30 days after publication in the Federal Register].

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-R08-OAR-

2012-0479. All documents in the docket are listed on the [www.regulations.gov](http://www.regulations.gov) website. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through [www.regulations.gov](http://www.regulations.gov), or in hard copy at the Air Program, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado 80202-1129. The EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8 a.m. to 4 p.m., excluding federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Deirdre Rothery, U. S. Environmental Protection Agency, Region 8, Air Program, Mail Code 8P-AR, 1595 Wynkoop Street, Denver, Colorado 80202-1129, (303) 312-6431, [rothery.deirdre@epa.gov](mailto:rothery.deirdre@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document, “we”, “us”, and “our” refer to the EPA.

## **Definitions**

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- i. The initials APA mean or refer to the Administrative Procedure Act.
- ii. The words or initials Act or CAA mean or refer to the Clean Air Act, unless the context indicates otherwise.
- iii. The initials BTU mean or refer to British Thermal Unit.
- iv. The initials CAFOs mean or refer to Consent Agreement Final Orders.
- v. The initials CDPHE mean or refer to Colorado Department of Public Health and Environment Air Pollution Control Division.

- vi. The initials CO mean or refer to carbon monoxide.
- vii. The words EPA, we, us or our mean or refer to the United States Environmental Protection Agency.
- viii. The words Reservation or the initials FBIR mean or refer to the Fort Berthold Indian Reservation.
- ix. The initials FIP mean or refer to Federal Implementation Plan.
- x. The initials GOR mean or refer to gas-to-oil ratio.
- xi. The initials LACT mean or refer to lease automatic custody transfer.
- xii. The initials MDEQ mean or refer to Montana Department of Environmental Quality.
- xiii. The initials NAAQS mean or refer to the National Ambient Air Quality Standards.
- xiv. The initials NAICS mean or refer to the North American Industry Classification System.
- xv. The initials NDDoH mean or refer to the North Dakota Department of Health.
- xvi. The initials NDIC mean or refer to the North Dakota Industrial Commission.
- xvii. The initials NESHAP mean or refer to National Emission Standards for Hazardous Air Pollutants.
- xviii. The initials NMED mean or refer to New Mexico Environment Department Air Quality Bureau.
- xix. The initials NO<sub>x</sub> mean or refer to nitrogen oxides.
- xx. The initials NO<sub>2</sub> mean or refer to nitrogen dioxide.
- xxi. The initials NSPS mean or refer to New Source Performance Standards.
- xxii. The initials NSR mean or refer to new source review.
- xxiii. The initials ODEQ mean or refer to Oklahoma Department of Environmental Quality Air Quality Division.
- xxiv. The initials PM mean or refer to particulate matter.
- xxv. The initials PSD mean or refer to prevention of significant deterioration.
- xxvi. The initials PTE mean or refer to potential to emit.
- xxvii. The initials RCT mean or refer to Railroad Commission of Texas, Oil and Gas Division.

- xxviii. The initials SCADA mean or refer to Supervisory Control and Data Acquisition.
- xxix. The initials SIP mean or refer to State Implementation Plan.
- xxx. The initials SO<sub>2</sub> mean or refer to sulfur dioxide.
- xxxi. The initials TAR mean or refer to Tribal Authority Rule.
- xxxii. The initials TAS mean or refer to treatment as state.
- xxxiii. The initials TIP mean or refer to Tribal Implementation Plan.
- xxxiv. The initials UDEQ mean or refer to Utah Department of Environmental Quality.
- xxxv. The initials VOC mean or refer to volatile organic compound(s).
- xxxvi. The initials VRU mean or refer to vapor recovery unit.
- xxxvii. The initials WDEQ mean or refer to Wyoming Department of Environmental Quality Air Quality Division.

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## **I. Background**

On August 1, 2012, we signed a proposed rulemaking to establish a Federal Implementation Plan (FIP) for oil and natural gas production facilities located on the Fort Berthold Indian Reservation (FBIR). We also signed an interim final rule concurrent with the proposed action because we found good cause under Section 553(b)(B) of the Administrative Procedure Act, 5 U.S.C. 551 *et. seq.* that notice-and-comment are impracticable, unnecessary or contrary to the public interest in this instance.

The proposal and concurrent interim final rule were published in the Federal Register on August 15, 2012 (77 FR 48878), and residents of the FBIR, as well as industry representatives and environmental groups commented on the proposed rule. During the 60-day comment period that ended on October 15, 2012, we also held a public hearing in New Town, North Dakota on September 12, 2012. We received seven written comments during the comment period and 12 people provided oral testimony at the public hearing. This **Federal Register** action announces our final action on the proposed regulations.

In promulgating this rule, the EPA is exercising its discretionary authority under Sections 301(a) and 301(d)(4) of the Clean Air Act (CAA) to promulgate regulations as necessary to protect tribal air resources. Promulgating this final rule addresses an important initial step to fill a regulatory gap between state and federal requirements with regard to controlling volatile organic compound (VOC) emissions from oil and natural gas operations on the FBIR. There is no other federal rule, including the recently finalized New Source Performance Standards (NSPS) and National Emissions Standards for Hazardous Air Pollutants (NESHAP) for the Oil and Natural Gas Sector (NSPS OOOO and NESHAP HH)<sup>1</sup>, that establishes regulations for the particular oil and natural gas production operations that exist on the FBIR. This is in contrast to oil and natural gas operations off the Reservation, which are governed by the North Dakota Department of Health (NDDoH) regulations and North Dakota Industrial Commission (NDIC) regulations within the State of North Dakota's jurisdiction. The NDDoH requirements were developed with an understanding of the high VOC emissions and infrastructure constraints that exist in the region. Consistent with the regulatory structure that exists off the FBIR, and NSPS OOOO, this rule has requirements for VOC emissions control and reductions, monitoring,

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<sup>1</sup> "Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Review, Final Rule" *Federal Register* 77:159 (16 August 2012) p. 49490. The regulations can be accessed at <http://www.epa.gov/airquality/oilandgas/actions.html> and are included in the docket for this rule.

recordkeeping, and reporting. This rule also establishes requirements that are clear and legally and practicably enforceable.

We developed this rule in consultation with the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation. As part of this consultation, we evaluated the oil and natural gas activities and sources of VOC emissions that could impact air resources on the Reservation and the differences in the VOC emission reduction requirements for those facilities operating on the FBIR compared to those facilities operating in NDDoH jurisdiction. The final rule we are promulgating today establishes regulations for oil and natural gas production and storage operations specific to the FBIR and applies to all lands on the FBIR, which is defined by the Act of March 3, 1891 (26 Statute 1032) and which includes all lands added to the Reservation by Executive Order of June 17, 1982.

We drafted the requirements that are consistent to the greatest extent practicable with the most relevant aspects of neighboring state and local rules concerning the air pollutant emitting activities on the FBIR. We do not intend, nor do we expect, this regulation to impose significantly different regulatory burdens upon industry or the residents of the FBIR than those imposed by the rules of state and local air agencies in the surrounding areas. We evaluated the regulations imposed by other oil and natural gas producing state jurisdictions, NDDoH, NDIC, and NSPS OOOO. Included in the docket for this rule are copies of the regulations and guidance that we considered in this process, as well as a technical support document<sup>2</sup> (TSD) explaining the requirements.

We requested comments on all aspects of our proposed action and provided a 60-day comment period. During the comment period, we received comments on our proposed rule that supported our proposed action and that were critical of our proposed action. After evaluating all the comments that were received, we are taking final action to respond to the comments we have received, explain the basis

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<sup>2</sup> The Technical Support Document includes a more detailed explanation of the development of this FIP. It can be found in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

for our action, and promulgate the final rule. In this final rule, also referred to as the Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa, and Arikara Nation), North Dakota, we are making certain revisions based on the information provided by commenters and regulated entities. This preamble to the final rule responds to the issues raised by commenters and describes the final rule and significant changes from the proposed rule.

## **II. Basis for Final Action**

This Federal Register action announces the EPA's final action on the proposed regulations of August 15, 2012. In promulgating this rule, the EPA is exercising its discretionary authority under Sections 301(a) and 301(d)(4) of the CAA to promulgate such implementation plan provisions as are necessary or appropriate to protect air quality within the FBIR, specifically identified in 40 CFR Part 49, Subpart K - Implementation Plans for Tribes – Region VIII. After evaluating air quality issues for the FBIR, the EPA was concerned that there was a gap in air quality requirements for oil and natural gas production facilities on the FBIR under the CAA and its implementing regulations.

Our proposed rule in August 2012 was generally based upon the aspects of neighboring NDIC and NDDoH regulations most relevant to the oil and natural gas production VOC-emitting activities occurring on the FBIR. We acknowledged that there were some differences between the requirements in the proposed rule and those in the NDIC and NDDoH regulations, most notably additional monitoring requirements. These differences were necessary to meet the standards for promulgating FIPs. Included in the docket for the proposed rulemaking were copies of all of the state rules that the EPA considered in this process, as well as a TSD comparing the proposed regulations with the state regulations and a description of why the EPA believed the proposed rule was appropriate.



During the public comment period, a number of FBIR residents, industry representatives and the regulated entities, environmental and resident advocate organizations, and tribal government agencies submitted comments on the rule proposed by the EPA and offered suggestions for improving the proposed rule. We have fully considered all substantive public comments on our proposal and have concluded that certain changes are warranted. Those changes are discussed in Section V of this notice. However, the EPA does not intend, nor does it expect, these regulations to impose significantly different regulatory burdens upon industry or the residents within the FBIR than those imposed by the rules of the NDIC and NDDoH in the surrounding areas.

### **III. Final Action**

In this action, we are promulgating a Reservation-specific FIP to establish enforceable control requirements for reducing VOC emissions from oil and natural gas production activities on the FBIR in North Dakota. This final rule replaces the interim final rule promulgated on August 15, 2012 (77 FR 48878) in all intents and purposes on the effective date of the final rule.

### **IV. Major Issues Raised by Commenters and EPA's Response**

#### **A. PURPOSE AND SCOPE OF FIP**

**Comment:** Multiple commenters described the ways in which the existing oil and natural gas development had negatively affected their communities. For example, commenters described black smoke, visible soot, and strong gas odors. Other commenters expressed support of the EPA's decision to cover existing wells in the FIP.

**Response:** We acknowledge the concerns expressed by the commenters related to oil and natural gas production activities on the FBIR. The purpose of this FIP, in part, is to address the potential impacts of VOC emissions caused by the oil and natural gas production occurring in the region. By requiring process equipment at oil and natural gas production facilities to be operated with specific air emission

controls, under specific operating conditions and following specific procedures, this FIP will help address these concerns. We are requiring that operations at these facilities be monitored and records be kept such that any improper process or emission control equipment operated by the owner or operator at a facility can be identified and remedied by the EPA through enforcement of this FIP. The public can report possible harmful environmental activity on the EPA's website at <http://www.epa.gov/tips/>.

We acknowledge the commenters support of the FIP to cover existing wells. As discussed in the TSD, one goal of this FIP was to provide an avenue of compliance with the CAA for those companies subject to CAFO agreements. Our primary goal, as always is with regard to regulations developed under the CAA, was to ensure increased protection to the public health and the environment. This FIP provides these benefits through promulgation of enforceable requirements to limit VOC emissions from facilities that constructed prior to the effective date of the interim final FIP.

**Comment:** One commenter stated that the EPA needs to control air quality because hydraulic fracturing (“fracking”) is under-regulated.

**Response:** The majority of oil and natural gas wells drilled today are hydraulically fractured. Hydraulic fracturing occurs when wells are being completed and recompleted. NSPS OOOO ensures that VOC emissions are controlled from the completion and recompletion of natural gas wells. Additionally, this FIP requires that owners and operators of oil and natural gas production facilities on the FBIR reduce by at least 90% the VOC emissions from casinghead natural gas during the completion or recompletion of any oil and natural gas well. Together, these recent regulatory actions will provide significant control of emissions from hydraulic fracturing activities.

**Comment:** Several commenters stated that the EPA should set methane standards in the final FIP noting that methane is a greenhouse gas (GHG) with a high carbon dioxide (CO<sub>2</sub>) equivalent, and that leaked methane therefore negatively influences climate change. These same commenters also stated that the

EPA already requires control technologies that could facilitate emissions standards for methane and that tribes have particular interest in mitigating climate change because they are disproportionately impacted by it.<sup>3</sup> The commenters also stated that leaked methane decreases a potentially significant revenue stream for producers. Another commenter stated that flaring creates significant CO<sub>2</sub> pollution, which contributes to climate change.

**Response:** We had a very specific purpose for developing this FIP, which was to regulate VOC emissions from oil and natural gas production operations on the FBIR which represented the largest source of air quality concerns at this time. While this rule does not directly regulate other pollutants subject to regulation under the CAA, such as the GHGs methane and CO<sub>2</sub>, it does result in significant reductions of GHGs because of the substantial methane reduction as a co-benefit of the required VOC control.

**Comment:** Other commenters expressed concern about the dust now prevalent in the area. The commenters stated that excessive dust was often seen in the air as well as on trees and grass. Some commenters insisted that oil and trucking companies should participate in control of dust in the area. One commenter stated that visible emissions have not been responded to by the EPA or the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation.

**Response:** This FIP is focused on emissions of VOCs, and regulating fugitive dust resulting from oil and natural gas production activities on the FBIR was not within the scope of the rulemaking. If the EPA determines it is necessary to regulate other pollutants, we will address those at that time.

Generally, dust from road traffic is a local issue and the public should contact the local environmental or health agency with these concerns. The public can report possible harmful environmental activity on the

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<sup>3</sup> Commenter cites “EPA Tribal Science Council, Tribal Science Priority” at 1 (June 2011). A copy of the document is included in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>

EPA's website at <http://www.epa.gov/tips/>.

**Comment:** Several commenters noted a significant increase in truck traffic since oil and natural gas production on the FBIR had begun. One commenter noted that the incidence of traffic accidents, often fatal, has significantly increased on the FBIR since production has begun.

**Response:** Traffic in North Dakota and on the FBIR is regulated by the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation or the United States Department of Transportation, and not by the EPA and thus is not within the EPA's authority to address.

**Comment:** One commenter discussed being bothered by noticeable diesel emissions from the increased truck traffic. Another commenter noted that an oil rig was polluting in close proximity to a school.

**Response:** This FIP does not regulate the exhaust emissions from the trucks or oil rigs. These sources of emissions meet the definition of on-road and non-road motor vehicles (mobile sources) under the CAA and are subject to regulations under those provisions. This FIP only regulates stationary oil and natural gas production sources. A stationary source is defined in the CAA (42 USC §7602(z)) to mean "generally any source of an air pollutant." The definition specifically excludes those emissions resulting directly from an internal combustion engine for transportation purposes or from a nonroad engine or nonroad vehicle as defined in 42 USC 7550. This rule however does not exempt the owners and operators from any other requirements under the CAA to minimize pollutants and control emissions from these sources.

**Comment:** Some commenters stated that oil and natural gas development had also negatively impacted water quality. One commenter stated that the water at her house is undrinkable and is often too poor to be used for other common functions like laundry. Some commenters stated that they had witnessed trucks dumping waste from oil and natural gas production in unauthorized locations, including the ground near Skunk Bay.

**Response:** We acknowledge the concerns expressed by the commenters in regard to the effect that oil and natural gas production activities may have on water quality. Our authority to issue this rule, however, falls under the CAA. Water pollution on the FBIR is addressed through separate regulations established under the Clean Water Act (CWA). Additional information about the CWA can be found at <http://www.epa.gov/regulations/laws/cwa.html>. In addition, the public can report possible harmful environmental activity on the EPA's website at <http://www.epa.gov/tips/>.

**Comment:** One commenter recommended that the EPA explore voluntary partnerships with FBIR producers in order to deploy best practices for gas capture and use. Commenter stated that this may allow FBIR producers to demonstrate the feasibility and benefits of comprehensive gas capture at co-producing sites, and in doing so encourage these practices for other producers in the Bakken and elsewhere.

**Response:** We appreciate the commenter's suggestion; however, such a partnership is outside of the scope of this FIP and 40 CFR part 49. The comment is more appropriately addressed through the EPA's voluntary programs, such as the Natural GasSTAR Program.<sup>4</sup> Therefore we have forwarded this comment on to the Natural GasSTAR Program for their consideration.

## **B. LEGAL BASIS AND AUTHORITY**

**Comment:** Some commenters disagreed with our assertion that the rule is needed and justified to mitigate hazards to the public health and the environment, stating that actual emissions are much lower than potential emissions, and are low enough to present no hazard to public health or the environment. The commenters further stated that rather than the protection of the public health and environment, the purpose of this FIP is to solve the "legal and hypothetical problem" of ensuring potential emissions do

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<sup>4</sup> Information on the EPA's Natural Gas STAR Program is available online at: <http://www.epa.gov/gasstar/>, Accessed November 15, 2012.

not exceed regulatory applicability thresholds, such as the PSD thresholds. The commenters stated that the EPA proposed the FIP not to improve already good air quality<sup>5</sup> or to satisfy CAA requirements, but because many FBIR operators need preconstruction permits and the EPA lacks adequate time or resources to issue those permits by the time the Consent Agreement and Final Orders (CAFOs)<sup>6</sup> governing the sources expire.

Several commenters support the proposed FIP and also agree that we have just cause to mitigate hazards to the public health and the environment and with our assertion and that we are acting in accordance with our trust responsibilities to protect the public health and environment in Indian country.

***Response:*** The purpose of this FIP is to address potential impacts to the public health and the environment. It also solves some of the unusual challenges that owners and operators on the FBIR face with regard to compliance with the permitting requirements of the CAA. However, our primary purpose for developing rules to regulate air emissions is to meet the requirements of the CAA to protect the public health and the environment by providing those living on the Reservation the same level of air quality and health protection as people living outside the Reservation. So, while this FIP solves some of the challenges that the owners and operators on the FBIR face with regard to requirements of the CAA, or more specifically the PSD permitting requirements, the primary focus is to prevent the potential degradation of the air quality on the FBIR.

The CAA is a comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes us to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. Amendments to the CAA codified the PSD preconstruction permitting program to protect the public health and the environment from any

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<sup>5</sup> Commenter references the interim final rule at 77 FR 48886.

<sup>6</sup> The FBIR CAFOs are included in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

actual or potential adverse effects which may reasonably be anticipated to occur notwithstanding attainment and maintenance of the NAAQS.

Because of the high quantity of VOC emissions present in the oil and natural gas operations in the Bakken formation, the absence of infrastructure to capture excess volatile liquids, and the regulatory gap that rendered the use of control technology unenforceable prior to the FIP, some sources had potential emissions that would have required major source permits. These preconstruction PSD permits are one mechanism available to the EPA to assure that emissions increases associated with economic development do not threaten the NAAQS. Under the Federal Tribal NSR rule, sources located on the FBIR may also obtain synthetic minor NSR permits to limit their emissions below major source levels. Either of these options would require that the EPA review and issue several hundred air permits to emissions limitations similar to those required by this FIP. We determined, therefore, that issuing this FIP, and imposing emission limitations for these sources at one time was a more efficient and streamlined mechanism than issuing individual permits. We believe that this is the best way to address the potential harm that these previously unregulated VOC emissions would create, and ensure that we are not inhibiting the growth of oil and natural gas due to the permitting process, which could put the Tribe at an economic disadvantage.

Finally, while actual emissions for some sources may be lower than potential emissions, there are no federally and practicably enforceable emission control requirements for the affected equipment limiting the potential to emit. This rule imposes emission limitations that are federally and practicably enforceable.

**Comment:** Several commenters stated that by proposing to adopt this FIP, the EPA is stepping into the shoes of the Tribes and acting as the local air pollution control authority. The FIP includes a comprehensive set of control measures for oil and natural gas operations – imposing requirements on

such operations merely because they exist and not because they have engaged in an activity that triggers a regulatory requirement, such as building a new source or modifying an existing source such that a PSD permit or a synthetic minor NSR permit is needed. In other words, the EPA is adopting what would otherwise amount to a State Implementation Plan (SIP) or TIP for the FBIR. The authority for such a control program necessarily flows from section 110(a), which specifies the measures that a SIP may include. This section of the CAA specifies that a SIP may “include enforceable emission limitations and other control measures, means, or techniques ... *as may be necessary or appropriate* to meet the applicable requirements of this chapter.” CAA section 110(a)(2)(A) (emphasis added). Thus, the EPA may adopt as part of this FIP only those measures that are needed to attain or maintain NAAQS or to meet other specified CAA applicable requirements.

**Response:** We disagree; the commenter is mistaken that the underlying authority for this FIP is found in Section 110(a) of the Act. Section 301(d) of the CAA, 42 U.S.C. 7601(d), directs us to promulgate regulations specifying the provisions of the Act for which it is appropriate to treat Indian tribes in the same manner as states. Pursuant to this statutory directive, the EPA promulgated regulations entitled, “Indian Tribes: Air Quality Planning and Management” (TAR) (63 FR 7254, February 12, 1998). Our regulations delineate the CAA provisions for which it is appropriate to treat tribes in the same manner as a state. *See* 40 CFR 49.3, 49.4. Among those provisions for which we determined such treatment was inappropriate are CAA section 110(a)(1) (SIP submittal and implementation deadlines) and CAA section 110(c)(1) (directing the EPA to promulgate a Federal Implementation Plan (FIP) “within 2 years” after we find that a state has failed to submit a required plan, or has submitted an incomplete plan, or within 2 years after we disapproved all or a portion of a plan). *See* 40 CFR 49.4(a), (d); 63 FR 7262-7266, February 12, 1998.

The TAR preamble clarified that by including CAA section 110(c)(1) on the § 49.4 list, “EPA is



not relieved of its general obligation under the CAA to ensure the protection of air quality throughout the nation, including throughout Indian country. In the absence of an express statutory requirement, EPA may act to protect air quality pursuant to its “gap-filling” authority under the Act as a whole. *See, e.g.* CAA section 301(a).” (63 FR 7265, February 12, 1998). The preamble confirmed that “EPA will continue to be subject to the basic requirement to issue a FIP for affected tribal areas within some reasonable time.” *Id.* (referencing § 49.11(a) which provides that the Agency will promulgate a FIP to protect tribal air quality within a reasonable time if tribal efforts do not result in adoption and approval of tribal plans or program).<sup>7</sup>

The preamble to the TAR set forth our view articulated in the proposed rule that, based on the “general purpose and scope of the CAA, the requirements of which apply nationally, and on the specific language of Sections 301(a) and 301(d)(4), Congress intended to give to the Agency broad authority to protect tribal air resources.” *Id.* at 63 FR 7262. It further discussed our intent to “use its authority under the CAA ‘to protect air quality throughout Indian country’ by directly implementing the Act’s requirements in instances where tribes choose not to develop a program, fail to adopt an adequate program or fail to adequately implement an air program.” *Id.*

The NDDoH, the CAA permitting authority for areas of North Dakota outside of Indian country, including outside of the FBIR, has promulgated rules to control emissions from oil and natural gas production facilities. Since there is not currently an approved TIP specifically covering the reduction of VOC emissions related to natural gas emissions from oil and natural gas production facilities on the FBIR, a lack of regulation exists with regard to such facilities operating within the exterior boundaries of the Reservation. This FIP establishes legally and practicably enforceable requirements to control and

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<sup>7</sup> Section 49.11(a) states that the Agency, “[s]hall promulgate without unreasonable delay such federal implementation plan provisions as are necessary or appropriate to protect air quality, consistent with the provisions of sections 301(a) and 301(d)(4), if a tribe does not submit a tribal implementation plan meeting the completeness criteria of 40 CFR part 51, Appendix V, or does not receive EPA approval of a submitted tribal implementation plan.” 40 CFR 49.11(a).

reduce VOC emissions. Therefore, in this rule, we determined that it is necessary and appropriate to exercise our discretionary authority under sections 301(a) and 301(d)(4) of the CAA and 40 CFR 49.11(a) to promulgate a FIP to remedy an existing regulatory gap under the Act with respect to oil and natural gas operations on the FBIR.

**Comment:** One commenter was concerned that the Tribe would have enforcement authority and be allowed to act arbitrarily and capriciously with regard to shutting down operations and requested that the requirements of this rule be enforced by the federal government. The commenter stated that the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation should not be allowed to enforce the rule because its elected officials have economic interest in the oil and natural gas industry, making them conflicted.

**Response:** At this time, EPA has not delegated to the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation the authority under these regulatory provisions to enforce the provisions of this FIP. The provisions in § 49.4162 of the Code of Federal Regulations establish the steps by which the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation may request delegation to assist us with the administration of this rule. As described in the regulatory provisions and the preamble to the proposed rule, any such delegation will be accomplished through a delegation of authority agreement between the EPA Region 8 Administrator and the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation. In the event such an agreement is reached, the rule would continue to operate under federal authority throughout the FBIR, and the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation would assist us with administration of the rule to the extent specified in the delegation agreement.

### **C. RULE DEVELOPMENT AND IMPLEMENTATION**

**Comment:** One commenter indicated that the State of North Dakota was issuing permits to drill on the

FBIR and asserted that the State has been giving out drilling permits “like candy,” leading to an overwhelming level of oil and natural gas development and increase in pollution on the FBIR. The commenter stated that the Tribe did not have, nor did they develop, necessary regulations when development began, and that the Tribe, as well as the EPA, is now playing “catch-up.”

**Response:** We acknowledge the commenter’s concern with increased oil and natural gas development on the FBIR, as well as increased development under the State of North Dakota’s jurisdiction and the need for reservation-specific regulations to protect public health and the environment. We note that the State of North Dakota does not have jurisdiction over development on the FBIR. As discussed in the preamble for the interim final rule, we first became aware of the need to address VOC emissions from these operations in August of 2011. At that time, a significant number of entities engaged in oil and natural gas operations on the FBIR informed us that the emissions of regulated air pollutants, including VOC, were significantly larger than previously understood and larger than emissions in other areas, due to the geologic characteristics and infrastructure challenges in the Bakken formation. At that time, we immediately took measures to ensure that VOC emissions were appropriately controlled by entering into CAFOs with the owners/operators to implement VOC controls. We then developed and promulgated this FIP as an interim final rule to immediately establish federally and practicably enforceable emission control requirements for the affected equipment. In addition, given the number of existing facilities that were operating as unregulated sources, we determined that existing facilities should also be subject to the FIP. We believe the series of actions taken to address the unregulated sources of VOC emissions on the FBIR occurred as soon as practicable after becoming aware of the issue.

**Comment:** One commenter stated that the EPA had accelerated development of this FIP without consideration of its impact on the community to avoid disrupting the pace of oil and natural gas development. Another commenter stated that this FIP is not strict enough, citing the estimated potential

long-term development of 1,000 oil and natural gas facilities by 2029 as discussed in the interim final rule (77 FR 48887).

**Response:** We disagree with the assertion that the expedited process for developing this FIP did not take into consideration the impacts of oil and natural gas development on the community. The mitigation of the air quality impact of oil and natural gas development on the FBIR was a priority when developing this rule. This rule will reduce VOC emissions from existing operations and limit the amount of VOC emissions from potential new development. Our intent is to level the health protections between the residents living on the FBIR and the residents living in the State of North Dakota. In other words, the EPA intends that the FBIR residents receive equivalent air quality protections as those residing in the State. We acted quickly in developing this FIP in order to provide those protections as soon as possible and avoid unnecessary disruption to oil and natural gas development. While the FIP development process has been quick, as discussed in this notice we have provided for full public participation and fully responded to all concerns.

We also disagree that the FIP is not strict enough. This FIP establishes requirements to control air pollution in the form of VOC emissions from oil and natural gas production and storage operations on the FBIR, comparable to those requirements developed by state permitting authorities. In addition, this FIP imposes emission reduction requirements that are robust and consistent with the control technology requirements for the oil and natural gas production and storage industry under NSPS OOOO.

**Comment:** One commenter stated that an environmental impact statement (EIS) was not required prior to leasing the tribal land for oil and natural gas development. The commenter noted that a programmatic environmental assessment (EA) is being conducted, but insisted that the more rigorous EIS should have been required. The commenter questioned whether it was legal for the EIS requirement to be bypassed, and stated that the requirements of the National Environmental Policy Act (NEPA) had been

“minimized.” Therefore, the commenter asserted that area residents were denied the opportunity to make statements regarding the impact of oil and natural gas development on their lives. Another commenter stated that the lack of adequate public notice for the EA was not compliant with NEPA and environmental justice.

**Response:** This FIP only regulates the VOC air pollutant emissions generated by the well completion and production and storage operations on the FBIR and is not subject to the requirements of NEPA (EIS or EA). A FIP is an action under the CAA and Section 7(c) of the Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. 793(c)(1)) exempts actions under the CAA from the requirements of NEPA, specifically this section reads “... (c) Major federal actions significantly affecting the quality of the human environment (1) No action taken under the Clean Air Act [42 U.S.C. 7401 et seq.] shall be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 [42 U.S.C. 4321 et seq.].” Therefore a NEPA analysis is not required for this FIP.

Leasing of the mineral rights and drilling of the oil and natural gas wells is regulated by the Bureau of Indian Affairs (BIA) and the Bureau of Land Management (BLM). Those federal agencies are undertaking any applicable NEPA requirements when approving leasing and drilling activities.

**Comment:** Many commenters asserted that this FIP falls short of its stated purpose because some facilities’ potential to emit (PTE) of VOCs or any other regulated NSR pollutant may exceed the applicability thresholds for PSD permitting resulting in the need for a synthetic minor NSR permit issued under Federal Tribal NSR Rule (if PSD permitting is to be avoided) even after applying the legally and practicably enforceable emission reductions provided in this rule (77 FR 48885). Several commenters stated that the EPA should declare in the final FIP that all sources that become minor under the Federal Tribal NSR rule will be considered “true minor” sources. More specifically, commenters

claim that sources treated as synthetic minor sources under this FIP could not install new wells for the foreseeable future because the EPA has not developed an expeditious process for issuing synthetic minor NSR permits.

Another commenter questioned why owners and operators working within the FBIR would be allowed to exceed VOC emission standards.<sup>8</sup> The commenter asked if there was any point in setting these standards if permits could be obtained to exceed them.

**Response:** The owners and operators subject to this FIP are not allowed to exceed established standards, and nothing in this FIP is intended to relieve the owners and operators of the responsibility to comply with all federal environmental laws and rules. This rule does not replace any requirement to obtain permission to construct under the PSD regulations at 40 CFR 52.21 or the Federal Tribal NSR regulations at 40 CFR 49.151; therefore, this FIP does not automatically create “true minor” status for those sources that become minor under the Federal Tribal NSR Rule. Owners and operators complying with this rule may still be required to obtain preconstruction permits to further reduce VOC emissions or the emissions of other pollutants that are regulated by the PSD and Federal Tribal NSR permitting regulations if the emissions thresholds for these regulations are exceeded. Further, this rule does not automatically make sources synthetic minor sources for purposes of the PSD regulations. A synthetic minor source is generally understood to include any source that would be major but for a requested enforceable limitation. For example, a source can become a synthetic minor source when the owner or operator requests a synthetic minor NSR permit through the Federal Tribal NSR regulations to avoid major source requirements of PSD and that request is approved and the permit is issued.

This rule is similar to NSPS OOOO promulgated at 40 CFR Part 60, NESHAP HH promulgated at 40 CFR Part 63, and the NDDoH regulations specific to oil and natural gas production operations at

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<sup>8</sup> The commenter is referring to the interim final rule Section III.E. “Effect on Permitting of Facilities.” (77 FR 48885).

Chapters 33-15-07 and 33-15-20 of the North Dakota Administrative Code, none of which replace CAA permitting requirements. Similar to the NSPS, NESHAPs, and NDDoH regulations, this rule provides legally and practicably enforceable restrictions for VOC emissions on an emission unit specific basis. Any reductions realized by complying with this rule can then be used to calculate the PTE of VOCs when determining whether any CAA permitting may be required. In addition, the rule only requires controls on VOC emissions, because of the high amount of associated natural gas in the crude oil from the FBIR and the absence of infrastructure to capture the natural gas emissions. Therefore, any potential emissions of VOCs or any other criteria pollutant that exceed the PSD permitting thresholds after taking credit for the enforceable restrictions in this rule would still result in the requirement to obtain a PSD permit for permission to construct. A synthetic minor NSR permit to avoid the PSD permitting requirements can still be requested through the Federal Tribal NSR regulations. Those facilities with potential emissions of VOCs and all other criteria pollutants that are below the PSD permitting thresholds and above the Federal Tribal NSR permitting thresholds after complying with the requirements of this FIP would be considered true minor sources under the Federal Tribal NSR regulations.

Finally, regarding the commenter's claim that sources treated as synthetic minor sources under this FIP could not install new wells for the foreseeable future because the EPA has not developed an expeditious process for issuing synthetic minor permits, the EPA has issued and continues to issue synthetic minor permits to sources on the FBIR to those who request them.

**Comment:** Several commenters requested that the EPA clarify that a stationary source and corresponding minor NSR permitting requirements apply to operations and equipment on a well pad and immediately appurtenant operations. These commenters also urged the EPA to clarify that geographically separated "well pads and related operations" should not be aggregated into one stationary

source simply because they are connected by gathering or production lines. The commenters asserted that the EPA's use of the term "integrally connected" (77 FR 48885) could create confusion as to what equipment and activities are considered part of a facility. The commenters cited *Summit Petroleum Corp. v. EPA*<sup>9</sup> as an example of the EPA incorrectly aggregating multiple wells, well pads and related facilities that were geographically widespread into one single facility for the purposes of the CAA. The commenters stated that such an approach is "nonsensical" and inconsistent with the CAA definition of "stationary source." The commenters also requested that the EPA explain the limited circumstances in which aggregation into a "facility" or "stationary source" is appropriate, and suggested the following as those circumstances; When: (1) the operations share a single two-digit major SIC code; (2) the operations are under common ownership or control; and (3) the operations are physically contiguous or physically proximate. The EPA should specify that functional interrelatedness should not be used to determine physical proximity.

**Response:** This action affects facilities operating on the FBIR in North Dakota, and thus the 6<sup>th</sup> Circuit's *Summit Petroleum* decision cited by the commenters does not apply.<sup>10</sup> When the EPA issues permits to sources that are also subject to this rule, the ultimate determination regarding the scope of the stationary source to be permitted will be made by implementing the stationary source definition contained in the federal NSR and Title V regulations (40 CFR 52.21(b)(5) and (6), 71.2). Such determinations are highly fact specific and will continue to be made on a case-by-case basis, applying the relevant regulatory criteria to the facts of the oil and natural gas production activities being permitted.

**Comment:** Several commenters stated that the final FIP should refer to Bakken Pool wells located on

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<sup>9</sup> *Summit Petroleum Corp. v. EPA*, Nos. 0904348, 10-4572 (Sixth Cir. 2012) at 1. The document is included in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

<sup>10</sup> Memo from Stephen D. Page, Director, Office of Air Quality Planning and Standards, to Regional Air Division Directors, Regions 1-10, *Applicability of the Summit Decision to EPA Title V and NSR Source Determinations* (Dec. 21, 2012), available at <http://epa.gov/nsr/documents/SummitDecision.pdf> and included in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.



the FBIR simply as “oil wells” or “Fort Berthold Indian Reservation wells” rather than using the phrases “oil and natural gas production wells” or “oil and natural gas production facilities.” The commenters asserted that using the characterization “oil wells” is consistent with related EPA rules.<sup>11</sup> One commenter also stated that North Dakota permits refer to these as oil wells. On the other hand, two commenters stated that they support the inclusion of co-producing oil and natural gas wells, which are defined as “oil and natural gas production facilities” in this FIP.

**Response:** The reference to the Bakken Pool<sup>12</sup> production facilities as oil and natural gas production facilities in this FIP is consistent with: 1) NDDoH regulations at 33-15-20 which defines an oil well as “any well capable of producing oil or oil and casinghead gas from a common source of supply”; and 2) the NDDoH’s Bakken Pool Guidance<sup>13</sup> (Bakken Pool Guidance) which refers to the facilities as oil and gas production facilities, both of which form the basis of this rule. We believe this reference adequately describes the affected facilities under the FIP and is consistent with NDDoH regulations and guidance.

We acknowledge the commenter’s assertions that the facilities may be described differently in other EPA regulations. Although the Bakken Pool production wells on the FBIR would be considered oil wells based on the discussions in NSPS OOOO and Subpart W (76 FR 80567), those discussions do not adequately reflect the volume of natural gas coproduced from a Bakken Pool well. NSPS OOOO and Subpart W are national rules, and therefore, the discussions they contain must be broad enough to apply nationwide. Since this a reservation-specific FIP, we believe it is appropriate to use a more

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<sup>11</sup> Commenter specifically mentions the “New Source Performance Standards for Crude Oil and Natural Gas Production, Transmission and Distribution” (40 CFR Part 60, Subpart OOOO) and the “Greenhouse Gas Reporting Rule” (40 CFR Part 98, Subpart W).

<sup>12</sup> The Bakken Pool is defined as a compilation of crude oil formations consisting of Bakken, Sanish and Three Forks formations.

<sup>13</sup> *Bakken Pool Oil and Gas Production Facilities Air Pollution Control Permitting & Compliance Guidance*, NDDoH Air Quality Division, May 2, 2011. This guidance document was developed by the Bakken VOC Task Force. The Bakken VOC Task Force was a collaboration between the NDDoH and the owners and operators of oil and gas operations producing from the Bakken Pool. A copy of the guidance document is included in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

focused definition, as did the State of North Dakota in the Bakken Pool Guidance, due to the unique nature of the oil being produced from the Bakken Pool.

#### **D. APPLICABILITY**

**Comment:** Several commenters stated that the FIP should establish a minimum emissions threshold for applicability, which exists in NSPS OOOO.

**Response:** The only minimum emission threshold for applicability that exists in NSPS OOOO and could apply to emission units regulated under this FIP is the 6 tpy applicability threshold for storage tanks. While this FIP does not provide the same applicability threshold for tanks as that found in NSPS OOOO, it does exempt storage tanks that are or become subject to the requirements of NSPS OOOO. See § 49.4164(f). However, several tanks operating on the FBIR prior to the applicability date of NSPS OOOO are not subject to NSPS OOOO. Therefore, since these tanks are not subject to NSPS OOOO and do not have a minimum emissions threshold for applicability, we decided that it was appropriate to regulate these tanks in a manner consistent with NDDoH requirements for tanks at oil and natural gas production facilities outside the FBIR. Specifically, the Bakken Pool Guidance at Appendix D and this FIP at § 49.4164(d)(2)(ii), allow for a reduced VOC destruction efficiency and the use of pit flares where the PTE of VOCs from the aggregate of all produced oil storage tanks and produced water storage tanks interconnected with produced oil storage tanks at an oil and natural gas production facility is less than, and reasonably expected to remain below, 20 tons in any consecutive 12-month period. The commenters failed to provide any supporting information on appropriate applicability thresholds for the other production equipment regulated under this FIP. As previously discussed, we believe the volume of VOC emissions from oil and natural gas operations on the FBIR warrants specially tailored regulation, which we have developed in this FIP, and which NDDoH developed in their Bakken Pool Guidance. At this time, we do not have sufficient information to establish minimum thresholds for other

production equipment.

**Comment:** Several commenters stated that the EPA should clarify that the FIP statements "[t]he completion date is considered the date that construction at an oil and natural gas production facility has commenced" (77 FR 48885), and "[t]he recompletion date is considered the date that a modification has occurred at an oil and natural gas production facility" (77 FR 48885) are for the purposes of determining whether this FIP applies to a particular oil production facility and does not apply to other EPA rules or programs.

**Response:** We agree that the suggested clarification is necessary. We have added language to the applicable provision (§49.4161(b)) to indicate that the correlation of the initiation of well completion operations and well recompletion operations to the dates that construction and modifications commence is specific to this rule. In addition, we have changed the language to clarify that the compliance date is upon initiation of well completion operations and well recompletion operations.

**Comment:** Several commenters disagree with the EPA's assertion contained in the NSPS OOOO that recompletion of an existing well constitutes a modification. Because the EPA acts in accordance with the NSPS OOOO regarding this position, the commenters restated the position they had voiced in comments on the proposed NSPS OOOO. The commenters concluded that this same error should not be perpetuated in the final FIP.

**Response:** The issue of what constitutes modifications under CAA section 111 was decided by EPA in the prior rulemaking and is not being reopened here. While we are not statutorily compelled to use the same definition here, we think it is appropriate to do so and commenters have not provided a policy basis on which to revisit EPA's conclusion. As explained in detail in section IX.A. of the preamble for the final federal register notice of NSPS OOOO (77 FR 49510), a completion operation associated with refracturing is considered a modification under CAA section 111(a) because a physical change occurs to

the well resulting in emissions increases during the recompletion operation. When determining applicability for the rule, we used August 12, 2007, which is the earliest well completion date identified in the CAFOs and thus the earliest well completion date information available to the EPA at the time of the rulemaking. Due to the nature of operations producing from the Bakken Pool and the significant amount of co-produced natural gas emissions, it is important that modified facilities are required to control emissions from affected equipment. We believe including the definition of a modified facility in the final FIP is important because it will require the control of emissions from the recompletion of any existing well that was completed prior to August 12, 2007 that the agency may not have been aware of at the time of the rulemaking and that would not be subject to the rule prior to a modification.

**Comment:** One commenter urged the EPA to include pollution control requirements for dehydration units, pneumatic controllers and pumps, and compressors, stating that these sources could be significant sources of pollution. The commenter requested that the EPA incorporate the requirements for compressors and pneumatics from the NSPS OOOO, at a minimum.

**Response:** We agree with the commenter that dehydration units, pneumatic controllers and pumps, and compressors are other sources of air pollution that may be operating at the oil and natural gas production facilities on the FBIR. We reviewed information provided in 154 applications for synthetic minor NSR permits submitted to the Region 8 office<sup>14</sup> during the development of the FIP. Based on these applications, we were able to determine that the most significant sources of the VOC emissions are the pieces of equipment used to produce the oil and natural gas during well completions, phase separation of the extracted reservoir fluids (heater-treater), and the temporary storage of the crude oil (tanks). The information in the applications indicates pneumatic devices, dehydration units, compressors, and associated fugitive emissions listed in the applications were minor sources of VOC emissions when

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<sup>14</sup> The applications can be found in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at <http://www.regulations.gov>.

compared to other emission units. Therefore, requirements for this equipment have not been included in this rule. If we determine at a later date that there is a need for control of VOC emissions from oil and natural gas production equipment and operations not covered by this rule, we may propose additional FIPs or propose supplements to this FIP.

**Comment:** Several commenters stated that the EPA should remove all requirements applicable to heater-treater combustion devices from the FIP. The commenters asserted that the use of heater-treater combustion devices can already be taken into account when determining PTE because they are “inherent process equipment,” and that additional requirements for these devices are therefore unnecessary. The commenters cited criteria from the EPA letters<sup>15</sup> and the Compliance Assurance Monitoring (CAM) rulemaking<sup>16</sup> to argue that heater-treater combustion devices must be considered inherent process equipment based on those criteria.

The commenters stated that the EPA’s description of the heater-treater combustion device requirement in the FIP mandates the use of such devices at oil facilities, primarily for safety and product recovery, and does not address air quality concerns (77 FR 48883-48884).

The commenters also stated that the possibility of some oil facilities operating without heater-treater devices is not an appropriate justification for the FIP requirements, because any facilities operating as such would be in clear violation of standard operating procedures which ensure safe working conditions. The commenters insisted that the EPA should not base this justification on “unsupported assumptions” that standing laws are being violated or inadequately enforced.

**Response:** We acknowledge that the preamble at 77 FR 48883 states that the oil/natural gas/water

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<sup>15</sup> Letter from EPA to Mr. Timothy J Mahin, Intel Government Affairs, dated November 27, 1995; see also Letter from EPA to Edward R. Herbert III, Director of Environmental Affairs, National Ready Mixed Concrete Association, July 10, 2002, included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

<sup>16</sup> “CAM Response to Comments, Part III,” at 6-7, October 2, 1997, available online at <http://www.epa.gov/airtoxics/cam/ricam.html> and included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

emulsion from the production wells is transported through 2-phase separators (separators), which are an inherent component of the pipeline. We also state in the same paragraph that following the 2-phase separator, the emulsion enters a 3-phase separator (heater-treater), which is a necessary step in the production process and produces gas that is separated from the emulsion. However, until the separated gas from the heater-treater is captured as product or used in some other beneficial way at the facility (e.g., a fuel source for gas burning equipment) it is a significant source of the high volume VOC emissions we determined requires control to protect public health and the environment on the FBIR. Throughout the rulemaking process, one of our priorities was to equalize the requirements that apply to sources operating in the State of North Dakota's jurisdiction with the requirements that apply to sources outside of the State's jurisdiction. The NDIC regulations found in the Control of Oil and Gas Resources at Chapter 38–08-06 require that natural gas from the heater-treaters be routed to a natural gas gathering pipeline as soon as practicable. When a pipeline is not available, the natural gas produced in the heater-treater process is required to be routed to a control system or device. While we acknowledged in the preamble for the interim final rule that the purpose of the NDIC requirements was principally for safety and product recovery reasons, we also acknowledged that the requirements for heater-treaters were modeled after the Bakken Pool Guidance which requires that the emissions from heater-treaters be controlled.

#### **E. CONTROL EQUIPMENT AND REQUIREMENTS**

***Comment:*** One commenter stated that flares of roughly 40 feet are a usual sight in Mandaree and can be a nuisance to area residents because of light and noise pollution. Another commenter stated that flares were not being lit when they should have.

***Response:*** We acknowledge the concerns expressed by the commenters and offer a clarified explanation of the purpose and operation of the flares being used by operators of oil and natural gas production

facilities on the FBIR.

The purpose of flaring the natural gas that is coproduced when extracting oil from the FBIR wells is to prevent the emission of VOC gases that might otherwise be vented to the ambient air when the natural gas cannot be captured and injected into a sales pipeline. The flames from the flares indicate that the VOCs are actually being combusted. The flares should be lit at all times that co-produced natural gas is being routed to them rather than to the sales pipeline. In situations where production facilities are able to take advantage of existing infrastructure and inject produced gas into a pipeline, flaring is significantly reduced, in some cases to the point of only occurring as a backup control measure in the event that pipeline injections of all or part of the produced natural gas becomes temporarily infeasible. Situations at production facilities that are unable to route the gas to a sales pipeline and where flares are not visibly operating may indicate the flares are not being operated properly and gas is being vented directly to the ambient air. This FIP has appropriate monitoring, recordkeeping, and reporting requirements to ensure that the flares are operating properly. Further, because the FIP intends to limit the use of flares in favor of capture and injection of the produced natural gas into sales pipelines as soon as practicable, secondary impacts such as noise and light pollution from combustion of gas are expected to be reduced by the owner or operator complying with the rule.

**Comment:** One commenter speculated that the level of emissions from flares is above the allotted amount.

**Response:** It is unclear what is meant by the term “allotted amount.” The majority of oil and natural gas production facilities currently in operation on the FBIR do not hold any air pollution control permits that specify any “allotted amount” of emissions from the flares. Should the combustion emissions from flaring exceed the major source permitting thresholds under PSD specified at 40 CFR 52.21, the owner or operator would be required to obtain a PSD permit or may opt to obtain a minor NSR permit to

become synthetically minor for purposes of PSD prior to beginning actual construction, independently of this FIP. Either of these permits would require the installation of control technology sufficient to ensure protection of air quality.

**Comment:** Several commenters stated that the EPA should eliminate the 500 hour limitation on pit flare usage because it is inconsistent with the Bakken Pool Guidance and unnecessary. One commenter wondered why use of the pit flare was limited to 500 hours per year and not something different. The commenters also asserted that only being allowed to assume 90% VOC destruction and removal efficiency (DRE) for pit flares already limits the amount of pit flaring that could occur without exceeding major source thresholds. The commenters also stated that a limitation on the use of pit flares punishes operators that inject recovered produced natural gas and natural gas emissions into existing pipeline infrastructure to sell it, because 98% VOC DRE control devices are more costly. Another commenter asked who will monitor the pit flare operations and what the repercussions are if a source exceeds the limit of 500 hours of operation in any consecutive 12-month period?

**Response:** We disagree with the commenters that the 500 hour limitation on pit flare usage is unnecessary. The purpose of the 500-hour per year limit on use of a pit flare as a backup control device in instances where injection of produced natural gas and natural gas emissions is temporarily infeasible is to discourage the use of pit flares as a primary control device. Based on past EPA guidance<sup>17</sup> that addresses backup situations, we have concluded that applying a 500 hour per year limit to the oil and natural gas production facilities for the use of a pit flare in backup situations is reasonable and consistent with backup operation timeframes allowed for other industry sectors. In addition, past EPA enforcement

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<sup>17</sup> Memo from John S. Seitz, Director, Office of Air Quality Planning and Standards, to Regional Air Division Directors, Regions 1-10, *Calculating Potential to Emit (PTE) for Emergency Generators* (September 6, 1995), available at <http://epa.gov/region07/air/title5/t5memos/emgen.pdf> and included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>



settlements<sup>18,19</sup> that address backup situations have led us to conclude that 500 hours (or 21 days) is a reasonable period of time for owners and operators of oil and natural gas production facilities to address these situations and maintain compliance with the rule. During development of the draft synthetic minor NSR permits prior to this rule, we had discussions with owners and operators indicating that many oil and natural gas production facilities on the FBIR regularly utilize temporary 98% VOC DRE control devices while they are preparing a facility for permanent production and storage operations<sup>20</sup>; therefore, we concluded it is reasonable to expect that an owner or operator could acquire one of these temporary control devices in situations where use of the pipeline may be infeasible for more than 500 hours.

The final rule requires the owners and operators to monitor and keep records of the hours that a pit flare is operated, a description of the justification for use and the volume of gas sent to it, to ensure that the EPA can make a determination, if necessary, that injection of produced natural gas and natural

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<sup>18</sup> Consent Decree *United States of America vs. Marathon Petroleum Company, LP, and Catlettsburg Refining, LLC*, available at: <http://epa.gov/compliance/resources/decrees/civil/caa/marathonrefining-cd.pdf> and included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

<sup>19</sup> Consent Decree *United States of America, and the State of Indiana, and Plaintiff Intervenors vs. BP Products North America, Inc.*, available at: <http://epa.gov/compliance/resources/decrees/civil/caa/whiting-cd.pdf> and included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

<sup>20</sup> As discussed in the preamble for the interim final rule (77 FR 48880), the EPA Region 8 air permit and enforcement programs hosted a Fort Berthold Oil and Natural Gas Production Minor NSR Permitting Process Meeting with the oil producers in late August 2011. Representatives from the Tribes were invited and attended in person and by phone. Discussions included the anticipated permitting timeline for permit applications submitted by the oil producers. Between August 23 and September 1, 2011, a draft example synthetic minor permit was sent by EPA to the meeting attendees and the Tribes in preparation for the next meeting on September 1, 2011. Then, on September 1, 2011, Region 8 hosted a permitting workshop. Representatives from the various oil producers and the Tribes were invited and attended. Representatives of the NDDoH also participated by phone. The minor NSR permitting process was discussed, as well as questions that the companies submitted ahead of time. The group began discussions on the draft example permit and set up a workshop specifically to delve into the specific permit conditions for the following week. On September 7 and 8, 2011, the EPA hosted a two-day follow-up permitting workshop. All previous meeting attendees were invited, including the Tribes. Participants included the oil producers and their consultants. NDDoH representatives were also on the phone. At this meeting the group went through the draft example permit and discussed the proposed conditions and appropriate edits. Also discussed was what would constitute a complete application (administrative and technical) and the various methods of PTE calculation proposed by the companies in attendance. The EPA Region 8 hosted an additional meeting on November 30, 2011 to discuss the revised example permit, and representatives from the various oil producers and the Tribes were invited and attended. During these permitting workshops, it was brought to our attention that owners and operators routinely use temporary, portable utility flares capable of achieving a 98% VOC DRE for the initial period when a new oil and natural gas production facility is being prepared for permanent operations. A copy of the attendee list for each meeting has been included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

gas emissions into a pipeline for sale or other beneficial purpose, or the use of the primary control device, has been maximized. Any deviations of these requirements must be reported to the EPA.

**Comment:** Several commenters stated that the EPA should clarify that 98% DRE utility flares and combustors are not required to be installed as backup control devices if an operator chooses to route vapors to a production line and use a 90% VOC DRE control device as backup. The commenters stated that such a clarification would prevent operators tied into a sales line from keeping utility flares or combustors idle and on-site for infrequent backup use.

**Response:** We agree. While the rule does not require the use of utility flares and combustors as backup control devices if the owner or operator is routing produced natural gas and natural gas emissions to a sales line, the rule does not clearly state this. The rule has been clarified.

**Comment:** Commenters stated that control requirements during completions, recompletions, and for the first 90 days of production are insufficient. The commenters urged the EPA to require that any flaring under the FIP be performed using an enclosed vent system, along with a utility flare or a similar device, which is capable of 98% VOC DRE.

**Response:** We disagree with the commenter that control requirements during completions, recompletions, and for the first 90 days of production are insufficient. This FIP establishes requirements to control air pollution in the form of VOC emissions from oil and natural gas production and storage operations on the FBIR, comparable to those requirements developed by state permitting authorities. In other words, we were motivated to level the playing field for the regulated community. With that in mind, the NDIC and NDDoH allow the use of pit flares or other 90% VOC DRE control devices during completions and recompletions. Shared by both the State of North Dakota and the EPA, another reason to limit the required VOC destruction efficiency to 90% VOC DRE is that an owner or operator may be put at a significant economic disadvantage if they purchase and install the much more expensive 98%

VOC DRE control devices and within the first 90 days after the first date of production a well is found to be too low producing to justify continued production and must be shut-in.

**Comment:** Several commenters stated that the EPA must clarify that emissions from completion and recompletion operations do not need to be vented to a flare until the level of VOC is sufficient to support combustion. The commenters asserted that one might interpret the FIP language which required each owner or operator to “route all casinghead natural gas to a utility flare or a pit flare capable of reducing the mass content of VOC by at least 90%”(77 FR 48895) to include venting materials that are not flammable and therefore unable to sustain combustion. The commenters stated that such an interpretation would make compliance with the rule impossible, as vented materials are typically not flammable in the early stages of completion or recompletion. The commenters cite “Letter to Mr. Matthew Todd from Peter Tsirigotis, Director, Sector Policies and Programs Division (Sept. 28, 2012)” as evidence that the EPA recently reached a similar conclusion.<sup>21</sup>

**Response:** While the regulatory language at § 49.4164(b) in the interim final rule is not specific on this point, the recordkeeping requirements for well completion and recompletion operations in § 49.4167(a)(4)(ii) of the interim final rule specifically require logging the date, time, and duration of any venting of casinghead natural gas from the oil and natural gas well; and specific reasons for each instance of venting in lieu of capture or combustion. Therefore, this requirement allows some degree of venting materials that may not be flammable during well completion and recompletion operations.

**Comment:** Several commenters stated that this FIP is inconsistent with NSPS OOOO and adds further confusion for operators who will be required to comply with both sets of requirements. These commenters further state that for all sources to which NSPS OOOO applies, the FIP should mirror NSPS OOOO requirements for oil and produced water tank control devices. Specifically, the commenters

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<sup>21</sup> A copy of the letter has been included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

stated that because the NSPS OOOO does not take effect for tanks for one year, the inconsistency results in an unnecessary burden. The commenters also asserted that since NSPS OOOO does not apply to heater-treaters, the requirements in the FIP for heater-treaters should mirror the requirements of the NDDoH regulations precisely. The commenter also expressed concern that the terms of NSPS OOOO are still subject to challenges that have not been resolved, although the commenter indicated that the EPA was in discussions with industry representatives to resolve those issues.

**Response:** We disagree that differences between this FIP and NSPS OOOO result in an “unnecessary burden” to owners or operators affected by the rules. Where there are differences between this FIP and NSPS OOOO, NDDoH requirements, and NDIC requirements, they exist for a specific reason. For example the requirements in this FIP for produced oil and produced water storage tanks provide legally and practicably enforceable control requirements for facilities currently operating on the FBIR until applicable storage tank requirements become effective under NSPS OOOO. At that time, the provisions in the NSPS OOOO for produced oil and produced water storage tanks will supersede the produced oil and produced water storage tank requirements in the FIP at § 49.4164(f), and owners or operators will never be required to comply with both sets of requirements since duplicate requirements do not apply to the affected equipment. In addition, we are addressing emissions controls for heater-treaters because we determined such controls are cost effective and have been demonstrated to be effective in light of the air quality concerns at play in the area. Specifically, we included the provision in the FIP at § 49.4164(d)(2)(iii), which requires aggregate storage tank VOC emissions at any facility that are greater than 20 tpy to be reduced by at least 98%, and VOC emissions less than 20 tpy to be controlled by at least 90%. We evaluated and adopted this FIP provision, which is consistent with the requirements for the heater-treaters found in the NDIC requirements at 38-08-06.4 and the heater-treater requirements in the Bakken Pool Guidance. We acknowledge that the 98% VOC DRE control requirement for heater-

treaters in this FIP is at the upper end of the 90-98% range in the Bakken Pool Guidance. However, the owners and operators of oil and natural gas production facilities on the FBIR have indicated that a 98% VOC DRE is achievable and committed in their synthetic minor NSR applications to reduce the mass content of VOC emissions routed to the enclosed combustors or utility flares used for both produced gas from heater-treaters and flashing gas from storage tanks by at least 98%. With this reduction, the owners and operators demonstrated that for most of their facilities the potential emissions would not trigger the requirements to obtain a PSD and/or Part 71 permit when accounting for the requested federally enforceable restrictions. The 98% level of control is necessary because of the high volume of VOC emissions that must be controlled.

The commenter did not specifically state which “challenges” to NSPS OOOO they were referring to in their comment. However, current petitions filed concerning NSPS OOOO are outside of the scope of this rule. Regardless of any future changes to NSPS OOOO, the primary intent of FIP is to provide environmental protection on the FBIR by creating federally enforceable control requirements for oil and natural gas operations on the FBIR. Additionally, as discussed above, these FIP requirements are consistent with the State’s requirements.

**Comment:** Multiple commenters stated that completion and recompletion requirements should be removed from the FIP because completion and recompletion requirements in NSPS OOOO only apply to hydraulically fractured natural gas wells, and that the application of these activities to oil wells in the FIP is therefore inconsistent with NSPS OOOO.

**Response:** This FIP requires owners or operators to route emissions from well completion and recompletion operations to a combustion device. This is similar to the requirements for hydraulically fractured gas wells in NSPS OOOO prior to January 1, 2015. While requirements for completions and recompletions in the NSPS OOOO only apply to natural gas wells, the FIP includes this requirement for

the oil and natural gas wells on the FBIR because of the high amount of associated natural gas in the crude oil. This is a significant source of VOC emissions that required control in the FIP and we think such a requirement is appropriate given the emissions characteristics of these wells in the Bakken formation, regardless of the emissions characteristics of other oil and natural gas production wells nationwide.

**Comment:** Commenter stated that the EPA should require recompleted oil and natural gas wells on the FBIR to perform reduced emission completions (RECs). The commenter asserted that many states including Colorado and Wyoming currently require RECs, and that both states have thriving oil and natural gas industries.<sup>22</sup> The commenter also stated that several natural gas companies currently employ use of RECs despite the fact that they are not required. The commenter insisted that, if RECs are determined not to be economical in areas like the FBIR with limited natural gas pipeline and gathering line infrastructure, the EPA must find alternative local uses for the natural gas. Commenter stated that the EPA should at least require RECs on the FBIR in the near future, similar to the NSPS. Commenter stated that the EPA's NSPS OOOO will require RECs at all new and modified gas wells beginning in 2015. Furthermore, another commenter stated that if the FIP were to require green completions, advanced notice of completion or recompletion as is included in the NSPS OOOO would be a critical requirement in the FIP.

**Response:** RECs cannot be performed if there is no gathering line available to convey natural gas produced during the completion flowback. Such lines are not likely to be available if the well location has no access to a natural gas gathering system. Although pipeline infrastructure is currently being developed on the FBIR, we do not believe there is currently sufficient access to natural gas gathering

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<sup>22</sup> Commenter cites William C. Allison, Director, Air Pollution Control Division, Colorado Department of Public Health and the Environment, Testimony before the United States Senate, Environment and Public Works Committee, Clean Air and Nuclear Safety Subcommittee, June 19, 2012. A copy of this transcript has been included in the docket for the rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

pipelines in all development areas of the FBIR to require RECs at this time. We recognize the potential for VOC emissions from well completion and recompletion operations and have maintained the requirement in the final rule to reduce these emissions by at least 90%. If we determine at a later date that there is a need for additional control of VOC emissions from well completion and recompletion operations, we may propose additional FIPs or propose supplements to this FIP.

**Comment:** One commenter stated that the emission control requirements of the FIP will not exceed the current NDIC emission control requirements, providing a “smooth transition” for the owners or operators. Another commenter requested more stringent emission limits be required than the NDIC requirements. A third commenter expressed concern that the regulations of the proposed FIP are equal to the NDDoH regulations and noted that the FBIR is its own nation, and therefore the FIP regulations are pertinent to the residents of the FBIR and not individuals outside the FBIR’s boundaries.

**Response:** One of the goals of this FIP is to provide air quality protection for the residents of the FBIR, while also allow for continued development of mineral resources. The FIP requirements are consistent with the most relevant aspects of the North Dakota rules based on our evaluation that the level of control was appropriate for meeting these goals while ensuring the enforceability required by a federal rule. We also evaluated over 150 synthetic minor NSR permit applications<sup>23</sup> to identify the most significant sources of VOC emissions and associated control equipment employed by the operators to ensure that the control requirements in this FIP are based on the nature of oil and natural gas production and storage operations on the FBIR.

**Comment:** Several commenters stated that the requirements of the FIP are too stringent. The commenters also noted that since FBIR is in attainment with all applicable NAAQS, highly stringent

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<sup>23</sup> The information reviewed was contained in synthetic minor NSR applications submitted to EPA, which are included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

controls are neither appropriate nor necessary. The commenters stated that the 98% control required in the FIP is above the 90-98% range the EPA allowed in recent CAFOs. The commenters also stated that the requirements of the FIP are inconsistent with the requirements that currently apply to operators of the same type of facilities through NDDoH regulations, specifically the Bakken Pool Guidance. The commenters asserted that the more burdensome requirements of the FIP as compared to those outside the FBIR may discourage expansion of operations within the FBIR.

On the other hand, other commenters stated their support of the EPA's requirements in the FIP, and encouraged the EPA to retain the 98% VOC DRE requirement for flaring at storage tanks, restating the EPA's position that this level is appropriate considering the unique geochemistry of the Bakken formation.

**Response:** We disagree that the requirement to reduce VOC emissions from production and storage operations by 98% is too stringent or burdensome. The owners and operators of oil and natural gas production facilities on the FBIR have indicated that a 98% VOC DRE is achievable and have even committed to it in their synthetic minor NSR applications to reduce the mass content of VOC emissions routed to the enclosed combustors or utility flares used for both produced gas from heater-treaters and flashing gas from storage tanks by that amount. The high VOC content of the oil and natural gas produced from Bakken Pool operations allows for a higher DRE. Many of the owners and operators of oil and natural gas production facilities indicated that a DRE of 98% was imperative to limit the applicability of permitting requirements that may result if only a 90% creditable reduction of VOC emissions is allowed. We also evaluated regulations in other oil and natural gas producing states within Region 8 and note that this FIP is consistent with Wyoming's requirements to control both storage tank and separation vessels by 98%.

**Comment:** Multiple commenters expressed concern with the requirements in § 49.4164 which states



that, beginning with the first date of production, facilities subject to the rule are required to route natural gas emissions from production operations and storage operations to a 90% emissions reduction device. Within 90 days of the first date of production, this device must be either replaced with a 98% emissions reduction device or tied to a gas sales line. The 90-day time frame listed in the rule should be extended to at least 180 days, to allow operators time to get the required equipment. There is added concern that given the number of devices that may need to be purchased for new facilities, particularly with the impending implementation of NSPS Subpart OOOO, equipment shortages will be expected. Further, commenters stated that the EPA should include a provision here that allows for an extension of the 180-day time limit for upgrading to a sales line or 98% control device in the event such equipment is unavailable.

**Response:** We disagree with the commenter that we should change the 90-day timeframe allotted to either replace a 90% emissions reduction device with a 98% emissions reduction device or inject produced natural gas and natural gas emissions to a gas sales line. One of the goals of this FIP is to protect human health and the environment and the required VOC emission control should be achieved as expeditiously as possible. Furthermore, when evaluating the estimated emissions provided by the oil and natural gas production operators for the facilities covered by the August 2011 CAFOs (77 FR 48879), we found that in many cases, the difference in controlled heater-treater emissions between only 90% VOC DRE for 90 days or less versus more than 90 days is the difference between being a true minor source of VOC emissions under the Federal Tribal NSR regulations and being a major source of VOC emissions under the PSD regulations based on the high VOC emissions from these oil and natural gas operations on the FBIR.

We recognize that some owners and operators might need time to acquire equipment that achieves the required VOC control and we believe, based on the information in permit applications

provided by the owners and operators on the FBIR that 90 days is a reasonable timeframe to acquire the necessary control equipment. The interim final FIP contains a provision that the owner or operator may use 98% VOC DRE control devices other than those specified in the FIP upon prior written approval from the EPA. Based on information submitted to date by an operator requesting alternative control device approval, it is possible to economically engineer shop-built flares that can be demonstrated to meet the required VOC DRE and that can be used until a utility flare becomes available, if insertion of the produced natural gas to a sales pipeline or use of the produced natural gas for other beneficial purpose is demonstrated to not be feasible.<sup>24</sup>

#### **F. MONITORING AND RECORDKEEPING REQUIREMENTS**

**Comment:** Multiple commenters stated that the EPA should impose less burdensome monitoring and recordkeeping requirements for minor sources. The commenters asserted that the level of detail required in the FIP is generally required only for major sources, and that it is higher than the detail required for minor sources by NDDoH regulations and the Bakken Pool Guidance. The commenters stated that the FIP should mirror NDDoH regulations regarding heater-treater control devices, meaning that monitoring and recordkeeping requirements should be eliminated. The commenters stated that the cost of monitoring and recordkeeping in the FIP is high compared to the benefit, and that these factors will create a disincentive to expand drilling on the FBIR. Although one commenter stated that the EPA's monitoring and reporting requirements are reasonable and will facilitate compliance while also gathering pertinent information on operations. Yet another commenter stated that the EPA's monitoring and reporting requirements could be even more stringent to include leak monitoring of the closed vent systems and advanced notification prior to performing a well completion or recompletion.

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<sup>24</sup> A copy of the submittal from Lisa Decker, WPX Energy, to Carl Daly, EPA Region 8 Air Program Director, on November 13, 2012 has been added to docket for the rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

**Response:** We acknowledged in the federal register notice and the TSD for the interim final FIP that monitoring, reporting, and recordkeeping (MRR) requirements were an area where the FIP would differ from the NDIC and NDDoH regulations, and the Bakken Pool Guidance. Federal regulations must contain requirements that are legally and practicably enforceable; and therefore this FIP contains legally and practicably enforceable provisions that are necessary to meet the requirements for federal regulations. Recognizing that this FIP regulates different oil and natural gas production equipment than NSPS OOOO, the approach we took in developing MRR requirements for oil and natural gas production emission control equipment is similar to the approach the Agency used in developing MRR requirements for gas well production emission control equipment. Therefore, we do not believe the requirements are any more burdensome than requirements for similar equipment in NSPS OOOO.

**Comment:** Several commenters stated that the EPA should allow an operator to make a visual inspection only once per quarter, and should require that operator to conduct a one-hour Method 22 evaluation only if the control device is actually smoking. The commenters asserted that the amount of time it would take just to conduct quarterly monitoring without this change could potentially require three full-time equivalent operators for that task alone.

The commenters requested that the EPA make two additional changes to the FIP's current requirements for monitoring smoking combustion devices, though the commenters ultimately stated that the resource burden to meet the smoke monitoring requirements would still be extreme regardless of whether the two changes were made. The first change is that the EPA increase the amount of time a control device can smoke before being considered a "smoking" device from two minutes to five minutes for consistency.<sup>25</sup> The second change is that the EPA remove the phrase "whenever an operator is on site" from § 49.4166(g)(3). The commenter stated that this phrase is ambiguous when read in

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<sup>25</sup> Commenter does not list the rule with which such a change would maintain consistency.

conjunction with the phrase “at a minimum quarterly.” The commenters also stated that it would be extremely burdensome for an operator to observe a flare for an entire hour each time that operator was on site. The commenters ultimately stated that even with this change, the requirement would still be extremely burdensome.

**Response:** We agree with the commenters that the EPA should only require an operator to conduct a Method 22 evaluation if visible smoke emissions are observed. We also agree with the commenter’s request that we increase the amount of time a control device can smoke before being considered a “smoking” device from two minutes to five minutes. This is consistent with the specification in NSPS OOOO at § 60.5415(e)(vii)(C) and (e)(vii)(D)(3), and the general provisions at § 60.18(b) for visible emissions testing of combustion control devices (77 FR 49556). However, we do not agree that one-hour observations are suitable, as both § 60.18(b) and NSPS OOOO require two-hour observations and we have no reason to conclude that a different approach is appropriate here.

We have revised the applicable condition in this final FIP to require the owner or operator to monitor for visible smoke and to only conduct a Method 22 evaluation if visible smoke emissions are observed. We have also revised the provision to specify that visible smoke emissions are present if smoke is observed more than five minutes in any 2 consecutive hours. We have not removed the requirement to conduct on site inspections of the operation of the device when an operator is onsite, but not less frequently than quarterly, because we disagree that this requirement is ambiguous. In addition, since we changed the monitoring provision to require observations for visible smoke before triggering the requirement for Method 22 evaluations, the commenters’ concern that the requirements are burdensome has been addressed.

**Comment:** Several commenters stated that the EPA should allow the operator to make frequent onsite checks or use other alternatives to meet the continuous recording device requirement in §

49.4165(c)(6)(v) for utility flares and enclosed combustors. The commenters asserted that there are significant challenges with obtaining the appropriate continuous monitoring equipment, and that operator checks should therefore be accepted as fully meeting the requirement, or at least as meeting the requirement in the interim.

**Response:** We agree that there needs to be an opportunity to perform alternative monitoring upon prior written EPA approval. We have revised the applicable provision at § 49.4166(i) to reflect this in the final rule.

**Comment:** One commenter stated that the EPA should “require regulated entities to regularly monitor VOC emissions from the components of closed-vent systems, using well-established methods and leak thresholds.” The commenter stated that in the preamble and proposed regulatory text, the EPA required proper maintenance and operation of vent lines, connections, fittings, valves, relief valves, or any other appurtenance employed to contain, collect and transport gases, and required that these components be designed to operate with no detectable natural gas emissions (77 FR 48889, 48896). However, the EPA failed to require producers to demonstrate or verify that the required closed-vent systems are “maintained and operated properly” or “operate with no detectable natural gas emissions.” Commenter stated that without a monitoring or verification requirement, the requirements for closed-vent systems “will be unenforceable and largely hortatory in nature.”

Commenter also stated that the lack of monitoring or verification requirements for closed-vent systems is at odds with the goal of the FIP, which is to establish emission limits at oil and natural gas facilities that are legal and practically enforceable. Commenter asserted that absent these verification requirements, a producer could not guarantee natural gas is controlled at 90% or 98%, and the EPA could not guarantee that the projected emission reductions have been achieved. Commenter stated that the EPA requires closed-vent monitoring techniques in other regulations, including NSPS OOOO and

the “National Uniform Emission Standards.”<sup>26</sup> Commenter recommended that, at a minimum, the EPA use the approach proposed by the agency in the National Uniform Emission Standards.

**Response:** We disagree that leak detection and repair (LDAR) requirements should be included in this FIP. As discussed in the preamble and TSD for NSPS OOOO, it was determined that LDAR monitoring was not cost effective for smaller oil and natural gas production facilities and we have no information from which to conclude that the same is not the case here. To demonstrate compliance with the requirements for closed-vent systems, the final rule requires all vent lines, connections, fittings, valves, relief valves, or any other appurtenance on tank covers and closed-vent systems be maintained and operated properly at all times and that they are visually inspected at least quarterly while the equipment is operating. Further, each bypass devices on all closed-vent systems are required to be equipped with a flow meter to continuously monitor the volume of natural gas emissions that are diverted from the natural gas gathering pipeline, or required control device. The final rule requires that the owners and operators keep records of all monitoring parameters and report instance where construction and operation was not performed in compliance with the requirements specified in the final rule.

## **G. REPORTING REQUIREMENTS**

**Comment:** Commenter recommended that the EPA require a self-certification mechanism, which would require a senior company official to certify as to the truth, accuracy and completeness of its annual report. Commenter suggested that the EPA draw on the example of the NSPS OOOO in developing this mechanism.

**Response:** We agree that self-certification is an important mechanism for assuring the public that the information submitted by each facility is accurate and have added a provision in the rule requiring

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<sup>26</sup> “National Uniform Emission Standards for Storage Vessel and Transfer Operations, Equipment Leaks, and Closed Vent Systems and Control Devices; and Revisions to the National Uniform Emission Standards General Provisions,” 77 Fed. Reg. 17,898, 17,943 and 18,009 (proposed Mar. 26, 2012) (proposed 40 CFR 65.429(a)).

owners or operators to certify as to the truth, accuracy and completeness of the annual reports. The EPA already requires a similar certification in the NSPS OOOO; therefore, we concluded that it is not unreasonable to require the certification for reports submitted under this FIP.

## **H. COST ANALYSIS**

**Comment:** One commenter agreed with the EPA's position that the FIP does not impose a significant cost on operators. Another commenter noted the benefits of the FIP, specifically citing the substantial and cost-effective VOC reductions that the EPA estimated in the FIP.

**Response:** We acknowledge the support of these commenters for this FIP. We have included information regarding the cost-effectiveness of this FIP in the TSD for the interim final rule.<sup>27</sup>

**Comment:** Commenter stated that the EPA does not address the economic benefits of natural gas capture when estimating the costs and benefits of the FIP. The commenter stated that "producers are very likely to derive substantial amounts of revenue by installing vapor recovery units and gathering lines to route excess natural gas that is captured by voluntary RECs and through other regulatory requirements to reduce leaks." The commenter referenced an NRDC report<sup>28</sup> and the NSPS OOOO (77 FR 49534, 49537) to support this point. The commenter also stated that the EPA noted this revenue opportunity in the FIP TSD, though it did not address it in the FIP itself. The commenter stated that it is especially important to consider these benefits because the EPA notes that its analysis already overestimates costs, and also generally stated that gas is a valuable commodity that should not be wasted.

**Response:** We did not discuss the use of RECs in the cost analysis in the TSD, as there is not currently adequate access to pipeline gathering systems on the FBIR to require RECs from well completion and

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<sup>27</sup> The TSD includes a more detailed explanation of the cost analysis for this FIP. It can be found in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

<sup>28</sup> "Natural Resources Defense Council, Leaking Profits: The U.S. Oil and Gas Industry Can Reduce Pollution, Conserve Resources, and Make Money by Preventing Methane Waste," 2012. A copy of this document has been included in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

recompletion operations, thus the current infrastructure is not amenable to this technique at this time. However, if we determine at a later date that there is a need for additional control of VOC emissions during oil and natural gas production well completion and recompletion operations on the FBIR, we may propose additional FIPs or propose supplements to this FIP.

**Comment:** Commenter stated that the EPA failed to quantify the economic benefits of protecting public health and ecosystems from pollution in the FIP. Commenter stated that increased oil and natural gas production leads to increased levels of ozone in the surrounding area, risking public health.<sup>29</sup>

Commenter stated that the EPA must consider the medical and other public health costs associated with oil and natural gas production and resulting ozone in order to provide an accurate economic impact assessment for the FIP.

**Response:** Given the accelerated development in this area, the high VOC emissions associated with the oil and natural gas operations and the absence of infrastructure on the FBIR, we determined the FIP should be effective immediately upon promulgation to ensure the protection of public health and the environment from exposure to air pollution, avoid fire hazards and protect the public from hazardous conditions. This FIP establishes regulations that significantly reduce VOC emissions from oil and natural gas production facilities on the FBIR, thereby protecting public health and the environment. This FIP is not a significant regulatory action under Executive Order 12866 and therefore an analysis of the potential costs and benefits associated with this action is not required. While we did not specifically quantify the economic benefits of protecting public health and the environment in the cost analysis, the control equipment required by this FIP is already extremely cost effective at less than \$15/ton, and any additional cost benefits due to possible reduced public health costs would only result in increased cost effectiveness. Therefore, we believe the cost analysis sufficiently addresses the economic impacts for

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<sup>29</sup> Commenter provides several examples in which oil and gas development drives up ozone emissions. See NRDC comments in the docket for this rule for specific citations.



this action.

## **I. PUBLIC NOTICE**

**Comment:** A commenter stated that the EPA did not provide the public with proper notice of the hearing, and therefore failed to ensure public participation in the rulemaking process. The commenter stated that the notice of the hearing in the tribal newspapers mistakenly referred to the hearing as a “meeting,” which the commenter noted is quite different than a hearing. The commenter also stated that information about the hearing should have been advertised on the radio, and noted that many residents in the FBIR have limited internet access. Some commenters blamed lack of adequate notice on what they observed to be a low turnout at the hearing(s). One commenter stated that the oil companies had been given adequate notice, but the public had not. One commenter urged the EPA to come back and host more hearings. Several commenters requested an extension of the comment period, but none specified a suggested length of extension.

**Response:** We disagree with these comments. We have exceeded the CAA public notice requirements for rulemaking. Under Section 307, the EPA is required to allow any person to submit written comments, data, or documentary information, as well as give interested persons an opportunity for the oral presentation of data, views, or arguments. The EPA is required to keep a transcript of any oral presentations and keep the record of the proceeding open for 30 days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information. The EPA is required to allow a reasonable period of at least 30 days for public participation.

As explained earlier in this notice, in promulgating this rule, the EPA is exercising its discretionary authority under sections 301(a) and 301(d)(4) of the CAA to promulgate regulations as necessary to protect tribal air resources. Therefore, while the Title I planning requirements of the CAA applicable to states do not directly apply to the EPA in promulgating a FIP in Indian Country, the EPA

used the public notice requirements found within the planning requirements as a guide in developing this FIP. For this FIP, the EPA also followed the public hearing and public notice regulations in 40 CFR 51.102 as a guide. According to CAA sections 301(a) and 301(d)(4) and 40 CFR 51.102, notice given to the public is to be provided by prominent advertisement in the affected area announcing the date(s), times(s), and place(s) of such hearings. Each proposed plan is to be made available for public inspection in at least one location in each region that it will apply.

The proposed FIP was published in the Federal Register on August 15, 2012. The federal register notice stated that public hearings would be held on September 12, 2012 from 1-4 pm and again at 6-8 pm at the 4 Bears Casino and Lodge in New Town, ND. An address for the location and contact information was provided. The federal register notice provided for a 60-day comment period, which required that public comments be received by the EPA Region 8 by October 15, 2012 and provided instructions for submitting comments. Two locations for review of publically available supporting docket materials for this FIP were listed including one at the EPA Region 8 office in Denver and one at the Environmental Division office of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation, in New Town, ND. A link for publically available electronic docket materials was listed in the federal register notice.

A public notice was posted in the following newspapers regarding the availability of this FIP for public comment on August 15 and 17, 2012: Bismarck Tribune, Dickinson Press, Minot Daily News, New Town News, Williston Herald, MHA Times, and Mountrail County Record. This public notice included all of the information about the public hearings, docket review locations (including internet link), contact information, and the instructions for submittal of comments that was contained in the federal register notice. Additionally, this public notice listed seven locations and addresses where the public could review copies of this FIP and all supporting docket materials in addition to the two listed in

the federal register notice, including: Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation's Administration Office, New Town, ND; Fort Berthold Community College Library, New Town, ND; Mandaree Community Center, Mandaree, ND; Parshall Segment Office, Parshall, ND; Twin Buttes Memorial Hall, Halliday, ND; White Shield Segment Office, Roseglen, ND; and Four Bears Community Building, Four Bears Village, ND. The EPA confirmed that this public notice was published in each of the seven local newspapers. We confirmed that copies of the FIP and administrative records were received on August 13, 2012 by each of the nine locations listed above.

We also prepared a public notice and request for comment bulletin. A copy of the bulletin was provided to the Director of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation Environmental Programs Office in New Town, ND on August 10, 2012 with a request that it be posted in prominent locations throughout the Reservation and affected area. The bulletin provided a summary of the proposed rule, the contacts, the nine locations where the proposed rule and administrative records could be viewed, the date, times and location of the public hearings and referred the public to a link for publically available electronic docket materials.

Additionally, we prepared a Public Service Announcement (PSA) for the local radio station, KMHA 91.3 FM Radio, Fort Berthold, New Town, ND. A copy of the PSA was provided to the Director of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation Environmental Programs Office in New Town, ND on August 10, 2012 with a request that it be provided to the local radio station for broadcasting throughout the Reservation and affected area. The PSA provided a brief summary of the proposed rule, requested public comment through October 15, 2012, provided a contact, listed the eight locations on the FBIR where the proposed rule and administrative records could be viewed, and provided date, time(s) and location information for the September 12, 2012 public hearings. One of the commenters noted the PSA was aired on the local radio station. This is documented on Page

30 of the public hearing transcript for September 12, 2012 at 6 pm.

Transcripts for both public hearings held on September 12, 2012 were generated and placed into the docket for this FIP. The comment period was kept open for 30 days after the public hearing. We verified that the seven newspaper notices published on August 15 and 17, 2012 referenced the public hearings held on September 12, 2012 as “public hearing” and not as a “public meeting.” This included the New Town News and the MHA Times in New Town, ND. The commenter may have intended to refer to the PSA instead of the newspaper regarding reference to a “public meeting” instead of a “public hearing.” The PSA inadvertently referred to the “public hearing” as a “public meeting.”

These opportunities for public participation were provided equally to the public and the regulated community. All residents and the regulated community were given the same opportunities to request and access information, comment and participate in this rule making process. Based on the federal register notice, newspaper notices, posting public notice and request for comment bulletin at locations on the reservation, holding two public hearings, making public hearing transcripts publically available, providing a 60-day public comment period, PSA, and links for publically available electronic docket materials, the EPA has exceeded all legal requirements for proper public notice of this FIP. We therefore decided not to hold additional hearings and meetings, or extend the public comment period.

**Comment:** Another commenter stated that the lack of adequate public notice was not compliant with environmental justice.

**Response:** We disagree with this comment. Environmental justice is one of the Agency’s highest priorities and we believe the process used in developing this rule fully complies with the requirements of Executive Order 12898 (59 FR 7629, February 16, 1994), which establishes federal executive policy on environmental justice (EJ). Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make EJ part of their mission by identifying and addressing, as appropriate,

disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States. EPA defines environmental justice as providing fair treatment and meaningful participation in environmental decision making. As detailed above, EPA exceeded CAA public notice requirements for rulemaking, and the record reflects extensive efforts to ensure meaningful participation in this case. The EPA's Action Development Process, Interim Guidance for Considering Environmental Justice during the Development of an Action provides additional guidance for implementation of EO 12898 related to public notice for actions like rulemaking. This guidance suggests inclusion of one or more public meetings or hearings in or near affected communities and tribes. Public meetings or hearings should include sufficient notice and should be scheduled at a time and place convenient to the affected communities and tribes. Successful solicitation of public comments from affected communities and tribes may incorporate tailored outreach materials that are concise, understandable, and readily accessible to the communities to be reached. For remote towns and villages, local radio stations, local newspapers, and posters at village or community centers may represent the most effective approach. We employed these methods to ensure that we reached the FBIR EJ community and allowed for meaningful involvement of affected communities and tribes.

While we understand that many residents on the FBIR do not have internet access, we employed numerous prominent advertisement methods not relying on the internet, including newspaper notices, posting public notice and request for comment bulletin at locations on the FBIR, holding public hearings, providing a 60-day public comment period, providing a PSA broadcast on local radio, as well as relying on the internet by providing links for publically available electronic docket materials.

We conclude that the public notice process exceeded EPA's legal obligations in rulemakings of this type, and that there is no reason to believe that such public notice was inadequate for compliance

with the Executive Order.<sup>30</sup> Although we agree that turnout was low at the September 12, 2012 public hearings, we do not believe that additional public hearings or meetings would have significantly increased turnout. We believe that low turnout at the public hearings was due to factors other than the significant public notice methods employed. We employed every reasonable effort to encourage attendance at public hearings and obtain public comments on this FIP.

We recognize that there are EJ concerns in the FBIR community. We have determined that this rule will not have disproportionately high and adverse human health or environmental effects on minority, low-income, and indigenous populations, because it ensures compliance with the NAAQS, which provides environmental and public health protection for all affected populations. Compliance with the NAAQS is relevant to an EJ claim to the extent that the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics.

**Comment:** A commenter asked if the annual report of FBIR facility activity would be accessible by the public.

**Response:** These reports will be submitted to the EPA Region 8 office in Denver, Colorado and maintained on file and will be available to the public. The documents may be obtained through the Freedom of Information Act (FOIA) process. If you seek a record, you should address your request to the EPA Region 8 FOIA Office. Requests for records can be sent by mail to FOIA office at Regional Freedom of Information Officer; U.S. EPA, Region 8, Mailcode: 8-OC; 1595 Wynkoop Street; Denver, CO 80202-1129. Request may also be made by electronic mail to [r8foia@epa.gov](mailto:r8foia@epa.gov), by facsimile at (303)

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<sup>30</sup> See *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*, 15 EAD \_\_\_, OCS Appeal Nos. 11-02, 11-03, 11-04, 11-08, slip op. at 40 n. 38 (EAB Jan. 12, 2012) (treating evidence of compliance with statutory and regulatory public participation requirements as showing sufficiency of participation for purposes of compliance with EO). A copy of the document has placed in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

312-6859, or by telephone at (303) 312-6856. Your request should be as specific as possible with regard to the subject, time frames, and locations. You do not have to give a requested record's name or title, but the more specific you are; the more likely it will be that the record you seek can be located. For example, if you are seeking records dealing with the FIP annual reports, request the FBIR FIP Annual Reports, the owner or operator you seek information on, and the calendar year(s) for the reports you seek.

## **V. Summary of Final Rule and Significant Changes from the Proposed and Interim Final Rule**

### **A. Administrative Edits**

*Correction:* In the proposed rule we identified incorrect citations to the Code of Federal Regulations (CFR) for publishing the rule. The final rule has been promulgated at Subpart K of 40 CFR Part 49 which is specific to Region 8 FIPs.

§49.140 is now §49.4161;

§49.141 is now §49.4162;

§49.142 is now §49.4163;

§49.143 is now §49.4164;

§49.144 is now §49.4165;

§49.145 is now §49.4166;

§49.146 is now §49.4167; and

§49.147 is now §49.4168.

### **B. Introduction**

This rule applies to any person who owns or operates an existing (constructed or modified on or

after August 12, 2007), new, or modified oil and natural gas production facility<sup>31</sup> that is located on the FBIR and producing from the Bakken Pool with one or more oil and natural gas wells, any one of which a well completion or recompletion operation is/was initiated on or after August 12, 2007.

For the purposes of this rule, a well completion means the process that allows for the flowback of oil and natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank. A well completion operation means any oil and natural gas well completion with hydraulic fracturing occurring at an oil and natural gas production facility. The completion date is considered the date that construction at an oil and natural gas production facility has commenced. The recompletion date is considered the date that a modification has occurred at an oil and natural gas production facility. The reason we selected the initiation of completions operations as the date for defining a new facility is that owners and operators use drill rigs prior to initial completion operations and this equipment is generally not in one location long enough to be considered a stationary source. In addition, it is not certain during the drilling operations whether a well will be a producing well. Hence, it is not known whether an oil and natural gas production facility will be constructed to support that well. The outcome of a completion operation provides the well owners and operators information necessary to determine whether an oil and natural gas production facility will be constructed.

Clarification: We have added language to the introduction at § 49.4161(b) to clarify that, for the purposes of this rule, the initiation of well completion operations and well recompletion operations are the dates that construction and modifications commence, as set forth in the regulatory text of this final rule.

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<sup>31</sup> For the purposes of this rule, an oil and natural gas production facility consists of one or more oil and natural gas wells and the air pollution emitting units that are utilized for production operations and storage operations for those wells. This definition was clarified from what was proposed in the interim final rule. Additionally, August 12, 2007 is the earliest well completion date identified in the CAFOs.



Compliance with the rule is required no later than [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER] or upon initiation of well completion or recompletion operations, whichever is later. Upon signature by the Administrator, we will post this rule on our internet site (<http://www.epa.gov/region8/air/fbirfip.html>) and notify the owners and operators and the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation.

*Clarification:* We have changed the language in the introduction at § 49.4161(c) to clarify that the compliance date is upon initiation of well completion operations and well recompletion operations, as follows:

**“§49.4161(c) When must I comply with §§49.4161 through 49.4168?** Compliance with §§49.4161 through 49.4168 is required no later than [INSERT 90 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER] or upon initiation of well completion operations or well recompletion operations, whichever is later.”

**C. Provisions for Delegation of Administration to the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation**

The provisions in §49.4162 establish the steps by which the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation may request delegation to assist us with the administration of this rule and the process by which the Regional Administrator of the EPA Region 8 may delegate to the Tribes the authority to assist with such administration of this rule. As described in the regulatory provisions, any such delegation will be accomplished through a delegation of authority agreement between the Regional Administrator and the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation. This section provides for administrative delegation of this federal rule and does not affect the eligibility criteria under CAA section 301(d) and 40 CFR 49.6 for TAS should the Tribes decide to seek such treatment for the purpose of administering their own EPA-approved program under

tribal law. Administrative delegation is a separate process from TAS under the TAR. Under the TAR, Indian tribes seek EPA-approval of their eligibility to run CAA programs under their own laws. The Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation would not need to seek TAS under the TAR for purposes of requesting to assist us with administration of this rule through a delegation of authority agreement. In the event such an agreement is reached, the rule would continue to operate under federal authority throughout the FBIR, and the Tribes would assist us with administration of the rule to the extent specified in the agreement.

#### **D. General Provisions**

The provisions in § 49.4163 General Provisions provide: 1) definitions that apply to this rule; 2) assurance that we will maintain its authority to require testing, monitoring, recordkeeping, and reporting in addition to that already required by an applicable requirement, in a permit to construct or permit to operate in order to ensure compliance; and 3) assurance that nothing in the rule will preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a facility would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

#### **E. Construction and Operational Control Measures**

The provisions in § 49.4164 Construction and Operational Control Measures provide requirements to reduce VOC emissions during well completion and recompletion operations. The owner or operator must route all casinghead natural gas emissions associated with completion and recompletion operations to a utility flare or a pit flare capable of reducing the mass content of VOCs in the natural gas vented to it by at least 90.0%. We note that the well completion and recompletion control requirements to use pit flares or utility flares that have the capability to reduce the mass content of VOC in the natural gas emissions routed to them by at least 90.0% percent by weight are the

minimum level of control that will be allowed under this rule. Owners and operators may also choose to perform reduced emission completions and recompletions<sup>32</sup>, which would exceed the 90.0% VOC emission reduction requirement. This section also requires the control of production and storage operations and imposes a timeline for installation of the controls on these operations. The owner or operator is required to reduce the mass content of VOC emissions from natural gas during oil and natural gas production and storage operations by at least 90.0% percent on the first date of production.

Within 90 days of the first date of production, we require the owner or operator to route the natural gas from the production and storage operations through a closed-vent system to a utility flare or equivalent combustion device capable of reducing the mass content of VOC in the natural gas vented to the device by at least 98.0%. The owner or operator also has the option to design their production and storage operations to recover the natural gas as product and inject it into a natural gas gathering pipeline system for sale or other beneficial purpose. For those owners or operators that choose to capture the natural gas as product rather than a pollutant to be controlled, the natural gas may temporarily be routed through a closed-vent system to an enclosed combustor, utility flare or pit flare in instances where injection of the product into the pipeline is temporarily infeasible. In these situations, the pit flare is considered a backup standby unit used for unplanned flare events, such as during temporarily limited pipeline capacity, that are beyond a producer's control and the pit flare is used to safely burn the natural gas product that could otherwise pose a potential risk to workers, the community, or the environment. The owner or operator, however, must limit the use of the pit flare in these instances to 500 hours in any consecutive 12-month period.

The rule requires the owner or operator to route all standing, working, breathing and flashing

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<sup>32</sup> U.S. Environmental Protection Agency. Lessons Learned from Natural Gas STAR Partners: Reduced Emissions Completions for Hydraulically Fractured Natural Gas Wells. Office of Air and Radiation: Natural Gas Star Program. Washington, DC. Available at: [http://epa.gov/gasstar/documents/reduced\\_emissions\\_completions.pdf](http://epa.gov/gasstar/documents/reduced_emissions_completions.pdf). Accessed July 26, 2012. A copy of this document has been placed in the docket for this rule under Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

losses from the produced oil storage tanks and any produced water storage tanks interconnected with the produced oil storage tanks through a closed vent system to either an operating system designed to recover and inject the natural gas emissions into a natural gas gathering pipeline system for sale or other beneficial use, or to an enclosed combustor or utility flare capable of reducing the mass content of VOC in the natural gas emissions vented to the device by at least 98.0%. However, to prevent duplicative federal requirements for owners and operators of storage tanks on the FBIR subject to both this rule and NSPS OOOO, storage tanks subject to and controlled under the requirements specified in 40 CFR Part 60, Subpart OOOO are considered to meet the storage tank control requirements of this rule. No further requirements apply for such storage tanks under this rule. In addition, the rule provides that if the uncontrolled PTE of VOCs from the aggregate of all produced oil storage tanks and produced water storage tanks interconnected with produced oil storage tanks at an oil and natural gas production facility is less than, and reasonably expected to remain below, 20 tons in any consecutive 12-month period, then the owner or operator may use a utility flare or enclosed combustor that is capable of reducing the mass content of VOC in the natural gas emissions vented to the device by only 90.0% upon prior written approval by the EPA.<sup>33</sup>

The control devices must be operated under specific conditions as specified in §49.4165 Control Equipment Requirements and § 49.4166 Monitoring Requirements.

#### **F. Control Equipment Requirements**

The provisions in § 49.4165 Control Equipment Requirements require the use of covers on all produced oil and water storage tanks and the use of closed-vent systems with all VOC capture and control equipment. Section 49.4165 also specifies construction and operational requirements for the covers and closed-vent systems. In addition, § 49.4165 requires specific construction and operational

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<sup>33</sup> If the owner or operator receives written approval for a new method from the EPA, the owner or operator must calculate potential to emit based on the new EPA-approved method.

requirements of pit flares, enclosed combustors, and utility flares.

The provisions in § 49.4165 require that each owner and operator equip the openings on each produced oil storage tank and each produced water storage tank that is interconnected with produced oil storage tanks with a cover that ensures that natural gas emissions are efficiently routed through a closed-vent system to a vapor recovery system an enclosed combustor, or a utility flare. Each cover and all openings on the cover (e.g., access hatches, sampling ports, and gauge wells) must form a continuous barrier over the entire surface area of the produced oil and produced water in the storage tank. Each cover opening must be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the tank on which the cover is installed except during those times when it is necessary to use an opening as follows: 1) to add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit); or 2) to inspect or sample the material in the unit; or to inspect, maintain, repair, or replace equipment located inside the unit.

Each owner and operator is required to use closed-vent systems to collect and route natural gas emissions to the respective VOC control devices. All vent lines, connections, fittings, valves, relief valves, or any other appurtenance employed to contain and collect gases, and transport them to the VOC control equipment must be maintained and operated properly during any time the control equipment is operating and must be designed to operate with no detectable natural gas emissions. If a closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the natural gas from entering the VOC control devices, the owner or operator must meet one of the following options for each bypass device: 1) at the inlet to the bypass device properly install, calibrate, maintain, and operate a natural gas flow indicator capable of taking periodic readings and sounding an alarm when the bypass device is open such that the natural gas is being, or could be, diverted away from the control

device and into the atmosphere; or 2) secure the bypass device valve in the non-diverting position using a car-seal or a lock-and-key type configuration.

Each owner or operator is required to follow the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions from each enclosed combustor or utility flare. Each enclosed combustor must have the capacity to reduce the mass content of the VOC in the natural gas routed to it by at least 98.0% for the minimum and maximum natural gas volumetric flow rate and British Thermal Unit (BTU) content routed to it. For the purposes of this rule, we require that all utility flares installed per this rule meet the requirements in 40 CFR 60.18(b), and all enclosed combustors installed per this rule must be tested according to the NSPS OOOO performance testing requirements. Until such time that compliance is required with the storage vessel requirements in the NSPS OOOO standard, however, the owner or operators can demonstrate compliance using methods specified in this rule.

We determined that certain work practice and operational requirements are also necessary for the practical enforceability of the VOC emission reduction requirement that the enclosed combustors or utility flares must achieve. Flares and combustors must be operated within specific parameters to effectively destroy VOC emissions. Therefore, each owner or operator must ensure that each enclosed combustor or utility flare is: 1) operated at all times that produced natural gas and natural gas emissions are routed to it; 2) operated with a liquid knock-out system to collect any condensable vapors (to prevent liquids from going through the control device); 3) equipped with a flash-back flame arrestor; 4) equipped with a continuous burning pilot flame or an electronically controlled electronically controlled automatic igniter system; 5) equipped with a monitoring system for continuous recording of the parameters that indicate proper operation of each enclosed combustor, utility flare, continuous burning pilot flame and electronically controlled automatic igniter, such as a chart recorder, data logger, or

similar devices; 6) maintained in a leak free condition; and 7) operated with no visible smoke emissions.

Section 49.4165 requires that each owner or operator limit the use of pit flares to: 1) the control natural gas emissions during well completion operations; 2) the control of VOC emissions in the event the natural gas that is being recovered for sale or other beneficial purpose must be diverted to a backup control device because injection into the pipeline is temporarily infeasible and there is no operational enclosed combustor or utility flare at the oil and natural gas production facility, in which instances the owner or operator must limit use of the pit flare to no more than 500 hours in any consecutive 12-month period; or 3) use when total uncontrolled PTE of VOCs from all produced oil storage tanks and any produced water storage tanks interconnected with produced oil storage tanks at an oil and natural gas production facility have declined to less than, and are reasonably expected to stay below, 20 tons in any consecutive 12-month period. Each pit flare must be operated to reduce the mass content of VOC in the natural gas routed to it by at least 90.0% and must be operated with no visible smoke emissions. Each pit flare must be equipped with an electronically controlled automatic igniter with malfunction alarm and remote notification system if the pilot flame fails. Each pit flare must be visually inspected for the presence of a pilot flame any time natural gas is being routed to it and if the pilot flame fails, it must be relit as soon as safely possible and the electronically controlled automatic igniter must be repaired or replaced before the pit flare is used again.

Section 49.4165 allows owners or operators of oil and natural gas production facilities to use control devices other than an enclosed combustor or utility flare, provided they are capable of achieving at least a 98.0% VOC destruction efficiency and upon our prior written approval by the EPA. This provision will allow for owner or operators to take advantage of technological advances in VOC emission control for the oil and natural gas production industry and will provide us with valuable information on any new control technologies.

Deletion: We have deleted the testing requirement at § 49.4165(c)(5)(iii). This was a temporary enclosed combustor testing requirement that applied until 40 CFR Part 60 Subpart OOOO- New Source Performance Standard for Oil and Natural Gas Sector (NSPS OOOO) was promulgated. Since NSPS OOOO was promulgated on August 16, 2012 and became effective on October 15, 2012, this temporary provision is no longer necessary.

Correction: We have clarified control equipment requirements at § 49.4165(c)(4). We have added language at § 49.4165(c)(4) to provide an exemption to § 60.18(c)(2) and (f)(2) for those utility flares operated with an electronically controlled automatic igniter as set forth in the regulatory text of this final rule.

Clarification: We have clarified that enclosed combustors and utility flares must be operated properly at all times that produced natural gas and/or natural gas emissions are routed to them, rather than just the term natural gas. The rule now reads as set forth in the regulatory text of this final rule at § 49.4165(c)(6)(i).

Correction: We have removed the requirement to install equipment for the monitoring of continuous burning pilot flames and electronically controlled automatic igniters on flares and combustors. These requirements were already provided for at § 49.4166(g)(1). The rule now reads as set forth in the regulatory text of this final rule at § 49.4165(c)(6)(iv).

Clarification: We have clarified the purpose for equipping utility flares and enclosed combustors with a monitoring system. We have revised the applicable provisions to read as set forth in the regulatory text of this final rule at § 49.4165(c)(6)(v).

Correction: We removed the requirement to monitor a pilot flame on pit flares since these flares are to be operated with electronically controlled automatic igniters only. The rule now reads as set forth in the regulatory text of this final rule at § 49.4165((d)(3(iv) and (v).



## **G. Monitoring Requirements**

Section 49.4166 Monitoring Requirements requires each owner or operator conduct certain monitoring that we determined is necessary for the practical enforceability of the VOC emission reduction requirements, including but not limited to: (1) Monitoring of the number of barrels of oil produced at the facility each time the oil is unloaded from the produced oil storage tanks; (2) Monitoring of the hours of operation of each pit flare used to control VOC emissions in the event the natural gas that is being recovered for sale or other beneficial purpose must be diverted to a backup control device because injection into the pipeline is temporarily infeasible and there is no operational enclosed combustor or utility flare at the oil and natural gas production facility; (3) Monitoring of the volume of produced natural gas from the heater-treater sent to each enclosed combustor, utility flare, and pit flare at all times; (4) Monitoring of the volume of standing, working, breathing, and flashing losses from the produced oil and produced water storage tanks sent to each vapor recovery system, enclosed combustor, utility flare, and pit flare at all times; (5) Visually inspecting storage tank thief hatches, covers, seals, PRVs, and closed-vent systems to insure proper condition and functioning; (6) Directly and continuously measuring, various parameters (i.e., product throughput, enclosed combustor flame presence, temperature, etc.) related to the proper operation of emissions units and required control devices to assure compliance with the emissions reduction requirements and operational limitations; and (7) Visually inspect all equipment associated with each enclosed combustor, utility flare, and pit flare at a minimum quarterly to ensure system integrity; (8) Visually monitoring for visible smoke from enclosed combustors, utility flares, and pit flares during operation.

The monitoring, recordkeeping and reporting requirements for the covers, close-vent systems, pit flares, enclosed combustors, and utility flares are intended to provide legal and practicable enforceability of the emission control requirements.

Correction: We have added monitoring requirements at §49.4166(d) to describe acceptable gas volume measurement methods, thus making this provision consistent with the provision at §49.4166(c). The rule now reads as set forth in the regulatory text of this final rule.

Revision: We have included more flexibility in the options for monitoring approaches. We have revised the applicable provisions to read as set forth in the regulatory text of this final rule at § 49.4166(g)(1).

Revision: We have clarified the intent of the provision at §49.4166(g)(2) in the final FIP to read as set forth in the regulatory text of this final rule:

Revision: We have revised the smoke monitoring provisions at §49.4166(g)(3) in the final FIP to read as set forth in the regulatory text of this final rule.

Revision: We have added a new monitoring provision at §49.4166(i) to allow for other monitoring options upon prior written approval by the EPA, as set forth in the regulatory text of this final rule

## **H. Recordkeeping Requirements**

Section 49.4167 Recordkeeping Requirements requires that each owner or operator of an oil and natural gas production facility keep specific records to be made available upon our request, in lieu of voluminous reporting requirements. The records that must be kept include, but are not limited to, all required measurements, monitoring, and deviations or exceedances of rule requirements and corrective actions taken, as well as any manufacturer specifications and guarantees or engineering analyses. These recordkeeping requirements provide legal and practical enforceability to the control and emission reduction requirements of this rule.

Clarification: We have clarified the recordkeeping requirements at §49.4167(a)(4)(ii) to correctly identify that casing head gas vented from producing wells should be monitored, not produced natural gas. The rule now reads as set forth in the regulatory text of this final rule.

Revision: We have revised the recordkeeping requirements at §49.4167(a)(8) to clarify that records must be maintained of the volume of natural gas emissions released when close-vent systems and control devices have been bypassed or were not operating. The rule now reads as set forth in the regulatory text of this final rule.

Correction: We have corrected the recordkeeping requirements at 49.4167(a)(5)(iv) to include the requirement to keep records of any instance in which an electronically controlled automatic igniter has failed. The rule now reads as set forth in the regulatory text of this final rule.

## **I. Reporting Requirements**

Section 49.4168 Notification and Reporting Requirements requires that each owner or operator of an oil and natural gas production facility prepare and submit an annual report, beginning one year after this rule becomes effective covering the period for the previous calendar year. The report must include a summary of required records identifying each oil and natural gas production well completion or recompletion operation for each facility conducted during the reporting period, an identification of the first date of production for each oil and natural gas production well at each facility that commenced operation during the reporting period, and a summary of deviations or exceedances of any requirements of this FIP and the corrective measures taken. Additionally, a report must be submitted for any performance test we require.

Clarification: Upon further review of the language at §49.4168(b) regarding annual reporting requirements, we determined it was necessary to clarify the requirement based on our original intent. The provision now reads as set forth in the regulatory text of this final rule:

We decided not to require owners or operators to register their oil and natural gas production facilities, because the Federal Tribal NSR Rule at 40 CFR 49.151 already requires registration of

existing minor sources and such a requirement in this rule would be redundant.

These reporting requirements are part of providing legal and practical enforceability to the control and emission reduction requirements of this rule.

Revision: As explained in the response to comments above, we have added a provision for notification and reporting requirements at §49.4168(b)(4)(iv) requiring owners or operators to certify as to the truth, accuracy and completeness of the annual reports. The new provision is consistent with the NSPS OOOO (40 CFR 60.5420(b)(1)(iv)) and reads as set forth in the regulatory text of this final rule.

#### **J. Effect on Permitting of Facilities**

This rule is not a permitting program. It does not impose or exempt the facilities from any federal CAA permitting requirements, including the PSD preconstruction permitting requirements at 40 CFR 52.21, Federal Tribal NSR Rule permitting requirements for minor sources at 40 CFR 49.151, or federal Title V operating permit requirements at 40 CFR part 71. The primary purpose of this rule is to address potential impacts to the public health and the environment. However, the rule does provide legal and practical enforceability for the use of VOC emission controls that are already being used voluntarily by the industry and for VOC emissions reductions from those controls. Provided that the facilities are in compliance with the new rule, they may take into account the enforceable VOC emission reductions from the required controls they use when calculating their PTE for determining applicability of the federal permitting requirements, to the extent that the effect those controls would have on VOC emissions is legally and practicably enforceable.

Regardless of this rule, due to the high amount of associated natural gas in the crude oil and the absence of infrastructure to collect the natural gas on the FBIR, some FBIR facilities' PTE of VOCs or any other pollutant subject to regulation may exceed the applicability thresholds for PSD, Federal Tribal

NSR Rule, or Title V permitting even after accounting for the legally and practicably enforceable emission reductions provided in this rule. In such cases, the owners or operators of these facilities are required to apply for and obtain the appropriate permits in accordance with the regulation.

#### **K. Registration Requirements**

This rule does not exempt facilities located on the FBIR from the registration requirements of the Federal Tribal NSR Rule, promulgated on July 1, 2011. Nor does this rule impose any additional registration requirements. The primary purpose of this rule is to address potential impacts to the public health and the environment. Provided that the facilities are in compliance with the provisions of this rule, facilities may include the enforceable VOC emission reductions resulting from the controls required in this rule when calculating their PTE, to the extent that the effect those controls would have on VOC emissions is legally and practicably enforceable.

If the PTE VOCs or any other regulated NSR pollutant is less than the major source thresholds in 40 CFR 52.21, but equal to or greater than the thresholds in the Federal Tribal NSR Rule, then registration is required of these facilities (40 CFR 49.160). Those facilities that must obtain a PSD permit pursuant to 40 CFR 52.21 or wish to obtain a preconstruction permit pursuant to 40 CFR 49.151 of the Federal Tribal NSR Rule, in addition to meeting the requirements of this rule, are exempt from this registration requirement.

### **VI. Statutory and Executive Order**

#### **A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563:**

##### **Improving Regulation and Regulatory Review**

This action is not a "significant regulatory action" under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

## **B. Paperwork Reduction Act**

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request (ICR) document has been prepared by us, and a copy is available in the docket for this action. The information collection requirements are not enforceable until OMB approves them. The ICR document prepared by us has been assigned the EPA ICR tracking number 2478.01.

The information requirements are based on notification, recordkeeping and reporting requirements in this FIP (40 CFR Part 49, Subpart K). These requirements are mandatory for each owner or operator 1) located on the Fort Berthold Indian Reservation; 2) constructing or operating an oil or natural gas production facility producing from the Bakken Pool with one or more oil and natural gas wells and 3) for which completion or recompletion operations are/were performed on or after August 12, 2007. *See* 40 CFR 49.4161. These records and reports are necessary for the EPA Administrator (or the tribal agency if delegated), for example, to: (1) confirm compliance status of stationary sources; (2) identify any stationary sources not subject to the requirements and identify stationary sources subject to the regulations; and (3) ensure that the stationary source control requirements are being achieved. The information would be used by the EPA or tribal enforcement personnel to: (1) identify stationary sources subject to the rules; (2) ensure that appropriate control technology is being properly applied; and (3) ensure that the emission control devices are being properly operated and maintained on a continuous basis. Based on the reported information, the EPA Administrator (or the delegated tribe) can decide which stationary sources, records or processes should be inspected.

Specifically, this FIP requires that each owner or operator conduct certain monitoring that we determined is necessary for the practical enforceability of the VOC emission reduction requirements. *See* 40 CFR 49.4166. The recordkeeping requirements in 40 CFR 49.4167 require that each owner or

operator keep specific records to be made available at the EPA's request. The recordkeeping requirements require only the specific information needed to determine compliance. Finally, the rules contain reporting requirements in 40 CFR 49.4168 that require each owner or operator to prepare and submit an annual report. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). We believe these information collection requirements are appropriate because they will enable us to develop and maintain accurate records of air pollution sources and their emissions, will provide the necessary legal and practical enforceability, and will ensure appropriate records are available to verify compliance with this FIP. All information submitted to us pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to the Agency policies set forth in 40 CFR part 2, subpart B.

It is estimated that 780 oil and natural gas production facilities will be subject to this FIP over the next three years. The oil and natural gas production facilities subject to this rule will incur approximately 29,655 hours in annual monitoring, reporting, and recordkeeping burden (averaged over the first three years after the effective date of the rule), incurring an estimated \$6.5 million (\$2012) in burden. This includes an annual average of 29,655 labor hours per year at a total labor cost of \$1.4 million per year, average annualized capital costs of \$2.2 million per year, average annual operating and maintenance costs of \$2.9 million per year, and an average annual estimate of 623 likely respondents over the next three years. This estimate includes the testing requirements, emission reports, developing a monitoring plan, notifications and recordkeeping. All burden estimates are in 2012 calendar year dollars and represent the most cost-effective monitoring approach for affected facilities. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for

our regulations in 40 CFR are listed in 40 CFR Part 9. When this ICR is approved by OMB, we will publish a technical amendment to 40 CFR Part 9 in the Federal Register to display the OMB control number for the approved information collection requirements contained in this final rule.

To assist members of the public who would like to provide comments on the ICR, our need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, we established a public docket for this rule, which includes this ICR, under Docket ID: EPA-R08-OAR-2012-0479. Submit any comments related to the ICR to the EPA and OMB. See **ADDRESSES** section at the beginning of this notice for information on submitting comments to the EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after **[Insert Date of Publication in the Federal Register.]**, please attempt to send comments to OMB by **[Insert Date 30 days After Publication in the Federal Register]**. Before finalizing the information collection requirements, we will respond to any comments submitted to the EPA or OMB.

### **C. Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, small entity is defined as: (1) a small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school



district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives “which minimize any significant economic impact of the rule on small entities” (5 USC 603 and 604). Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule.

This rule will not have a significant economic impact on a substantial number of small entities due to the reduced regulatory requirement, and thus the regulatory burden, to obtain federal CAA permits that this rule provides.

#### **D. Unfunded Mandates Reform Act (UMRA)**

This rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. As discussed in the TSD and preamble for the interim final rule, we determined the maximum annual cost of compliance with this rule on the oil and natural gas industry is estimated to be approximately \$50 million. However, we believe this is a conservative estimate and that actual annual costs would be much lower due to factors such as increased facility well density, standard industry practice to use VOC control equipment, and anticipated pipeline infrastructure development, which is explained further in the TSD. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule does not contain a significant federal intergovernmental mandate as described by section 203 of UMRA. Therefore, this rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

#### **E. Executive Order 13132: Federalism**

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule regulates under the CAA certain stationary sources in Indian country that are not subject to approved CAA programs of the State of North Dakota. Thus, Executive Order 13132 does not apply to this action. Although section 6 of Executive Order 13132 does not apply to this action, we consulted with the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation in developing this action. A summary of the consultation is provided below in section F of this preamble. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed action from State and local officials.

#### **F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments**

Executive Order 13175, entitled “Consultation and Coordination with Indian Tribal Governments” (65 FR 67249, November 6, 2000), requires us to develop an accountable process to ensure “meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.” “Policies that have tribal implications” is defined in the Executive Order to include regulations that have “substantial direct effects on one or more Indian tribes, on the relationship

between the Federal Government and the Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.’’

Under Section 5(b) of Executive Order 13175, we may not issue a regulation that has tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal Government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or we consult with tribal officials early in the process of developing the proposed regulation. Under Section 5(c) of Executive Order 13175, we may not issue a regulation that has tribal implications and that preempts tribal law, unless the Agency consults with tribal officials early in the process of developing the proposed regulation.

We concluded that this final rule will have tribal implications. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt tribal law. These regulations would affect the FBIR community by establishing air quality regulations and thus creating a level of air quality protection not previously provided under the CAA. The regulatory approach used in this rule would create federal requirements similar to those that are already in place areas adjacent to the Reservation. Finally, although tribal governments are encouraged to partner with us on the implementation of these regulations, they are not required to do so. Since this final rule will neither impose substantial direct compliance costs on tribal governments, nor preempt tribal law, the requirements of Sections 5(b) and 5(c) of the Executive Order do not apply to this rule.

Consistent with EPA policy, the EPA consulted with tribal officials and representatives of the Three Affiliated Tribes of the Mandan, Hidatsa and Arikara Nation early in the process of developing this regulation to permit them to have meaningful and timely input into its development.

Tribal consultation with the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation was first initiated on February 17, 2012 when we mailed a letter inviting the Tribes to consult on the first

group of synthetic minor NSR permits being issued on the Reservation under the Federal Tribal NSR Rule. Then, on March 29, 2012, EPA senior management and the Chairman of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation along with other government officials met via conference call to discuss the proposed FIP to be developed for the FBIR. We formally invited the Tribes to consult about this FIP in a letter dated April 10, 2012 to Chairman Tex Hall, of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation Council.

We again met with members of the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation Council on June 13, 2012 in New Town to consult and receive input from the Tribes as we developed this FIP. In attendance from the Council were the vice Chairman and two council members. The Tribes' legal counsel was also in attendance. The purpose of the consultation was twofold: (1) update the Tribes on the EPA's efforts to develop this FIP so that the air quality on the FBIR is protected and oil and natural gas development continues; and (2) discuss the Tribes' preferences regarding involvement in the FIP process. We provided information on our plan to prepare a FIP to ensure air quality protection while preventing delays in oil and natural gas production. We solicited the Tribes' input on the FIP development. The Council members present at the consultation meeting indicated that they strongly desired this FIP to be consistent with North Dakota's requirements for oil and natural gas production facilities in order to keep a level playing field for development and continue uninterrupted development of a key economic resource for the Tribes. The Council members expressed interest in the future delegation of this FIP so that the Tribes can implement the rule in place of us. The Council members also expressed interest in providing the Tribes' assistance in setting up a public hearing for the rule.

As noted above, the Three Affiliated Tribes of the Mandan, Hidatsa and Arikara Nation have indicated preliminary interest in seeking administrative delegation of the Federal Tribal NSR rule to

assist us with administration of that rule. We will continue to work with the Three Affiliated Tribes of the Mandan, Hidatsa, and Arikara Nation if administrative delegation is something the Tribes decide to pursue.

Information containing the consultation process is contained in the docket for this rule.

For purposes of the final rule, we specifically solicited additional comments on the proposed action from tribal officials. We did not receive any comments on the proposed rule from tribal officials during the public comment period.

#### **G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks**

The EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because the Agency does not believe the environmental or safety risks addressed by this action present a disproportionate risk to children. In addition, this rule requires control and reduction of emissions of VOCs, which will have a beneficial effect on children's health by reducing air pollution.

#### **H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use**

This action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Order 12866.

#### **I. National Technology Transfer and Advancement Act**

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs us to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise

impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs us to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rulemaking does not involve technical standards. Therefore, we did not consider the use of any voluntary consensus standards.

#### **J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**

Executive Order 12898 (59 FR 7629, February 16, 1994), establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

We did a demographic analysis of the areas closest to sources likely to be covered by this rule, and found disproportionately high concentrations of minority and low income populations. As detailed in our response to comments, we took substantial steps to ensure that such populations were given the opportunity for meaningful participation in the development of the rule. In addition, we conducted an EJ analysis that determined that this rule will not have disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority, low-income, and indigenous populations, because it ensures compliance with the NAAQS, which provides environmental and public health protection for all affected populations, including minority, low-income, and

indigenous populations.<sup>34</sup>

#### **K. Congressional Review Act**

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a “major rule” as defined by 5 U.S.C. 804(2). This rule will be effective 30 days from the date of publication, *i.e.*, on **[Insert date 30 days from date of publication in federal register]**.

#### **L. Judicial Review**

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[Insert date 60 days from the date of publication in the federal register]**. Any such judicial review is limited to only those objections that are raised with reasonable specificity in timely comments. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed and shall not postpone the effectiveness of such rule or action. Under section 307(b)(2) of the Act, the requirements of this final action may not be challenged later in civil or criminal proceedings brought by us to enforce these requirements.

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<sup>34</sup> The TSD includes a more detailed explanation of the EJ analysis for this FIP. It can be found in the docket for this rule, Docket ID: EPA-R08-OAR-2012-0479, which can be accessed at: <http://www.regulations.gov>.

**List of Subjects in 40 CFR Part 49**

Environmental protection, Administrative practice and procedure, Air pollution control, Indians, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: March 1, 2013

Bob Perciasepe  
Acting Administrator



40 CFR part 49 is amended as follows:

**PART 49--[AMENDED]**

1. The authority citation for part 49 continues to read as follows:

Authority: 42 U.S.C. 7401, et seq.

**PART 49-INDIAN COUNTRY: AIR QUALITY PLANNING AND MANAGEMENT**

Subpart K - Implementation Plans for Tribes – Region VIII

2. Add §§49.4161 through 49.4168 and an undesignated center heading to appear immediately before the newly added §49.4161 to read as follows:

\* \* \* \* \*

**Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota**

Sec.

**49.4161 Introduction.**

**49.4162 Delegation of authority of administration to the tribes.**

**49.4163 General provisions.**

**49.4164 Construction and operational control measures.**

**49.4165 Control equipment requirements.**

**49.4166 Monitoring requirements.**

**49.4167 Recordkeeping requirements.**

**49.4168 Notification and reporting requirements.**

\* \* \* \* \*

**Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota**

**§49.4161 Introduction.**

(a) *What is the purpose of §§ 49.4161 through 49.4168?* Sections 49.4161 through 49.4168 establish legally and practicably enforceable requirements to control and reduce VOC emissions from well

completion operations, well recompletion operations, production operations, and storage operations at existing, new and modified oil and natural gas production facilities.

(b) *Am I subject to §§ 49.4161 through 49.4168?* Sections 49.4161 through 49.4168 apply to each owner or operator constructing, modifying or operating an oil and natural gas production facility producing from the Bakken Pool with one or more oil and natural gas wells, for any one of which completion or recompletion operations are/were performed on or after August 12, 2007, that is located on the Fort Berthold Indian Reservation, which is defined by the Act of March 3, 1891 (26 Statute 1032) and which includes all lands added to the Reservation by Executive Order of June 17, 1892 (the “Fort Berthold Indian Reservation”). For the purposes of this subpart, the date that the first well completion operation at a new oil and natural gas production facility was initiated is the date that initial construction has commenced. For the purposes of this subpart, the date that a new well completion operation or the date that an existing well recompletion operation at an existing oil and natural gas production facility is initiated is the date that a modification has commenced.

(c) *When must I comply with §§49.4161 through 49.4168?* Compliance with §§49.4161 through 49.4168 is required no later than **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** or upon initiation of well completion operations or well recompletion operations, whichever is later.

#### **§49.4162 Delegation of authority of administration to the tribes.**

(a) *What is the purpose of this section?* The purpose of this section is to establish the process by which the Regional Administrator may delegate to the Mandan, Hidatsa and Arikara Nation the authority to assist the EPA with administration of this Federal Implementation Plan (FIP). This section provides for administrative delegation and does not affect the eligibility criteria under 40 CFR 49.6 for treatment in the same manner as a state.

(b) *How does the Tribe request delegation?* In order to be delegated authority to assist us with administration of this FIP, the authorized representative of the Mandan, Hidatsa and Arikara Nation must submit a request to the Regional Administrator that:

(1) Identifies the specific provisions for which delegation is requested;

(2) Includes a statement by the Mandan, Hidatsa and Arikara Nation's legal counsel (or equivalent official) that includes the following information:

(i) A statement that the Mandan, Hidatsa and Arikara Nation are an Indian Tribe recognized by the Secretary of the Interior;

(ii) A descriptive statement demonstrating that the Mandan, Hidatsa and Arikara Nation are currently carrying out substantial governmental duties and powers over a defined area and that meets the requirements of §49.7(a)(2); and

(iii) A description of the laws of the Mandan, Hidatsa and Arikara Nation that provide adequate authority to carry out the aspects of the rule for which delegation is requested.

(3) Demonstrates that the Mandan, Hidatsa and Arikara Nation have, or will have, adequate resources to carry out the aspects of the rule for which delegation is requested.

(c) *How is the delegation of administration accomplished?* (1) A Delegation of Authority Agreement will set forth the terms and conditions of the delegation, will specify the rule and provisions that the Mandan, Hidatsa and Arikara Nation shall be authorized to implement on behalf of the EPA, and shall be entered into by the Regional Administrator and the Mandan, Hidatsa and Arikara Nation. The Agreement will become effective upon the date that both the Regional Administrator and the authorized representative of the Mandan, Hidatsa and Arikara Nation have signed the Agreement. Once the delegation becomes effective, the Mandan, Hidatsa and Arikara Nation will be responsible, to the extent specified in the Agreement, for assisting us with administration of this FIP and shall act as the Regional

Administrator as that term is used in these regulations. Any Delegation of Authority Agreement will clarify the circumstances in which the term “Regional Administrator” found throughout this FIP is to remain the EPA Regional Administrator and when it is intended to refer to the “Mandan, Hidatsa and Arikara Nation," instead.

(2) A Delegation of Authority Agreement may be modified, amended, or revoked, in part or in whole, by the Regional Administrator after consultation with the Mandan, Hidatsa and Arikara Nation.

(d) *How will any delegation of authority agreement be publicized?* The Regional Administrator shall publish a notice in the Federal Register informing the public of any delegation of authority agreement with the Mandan, Hidatsa and Arikara Nation to assist us with administration of all or a portion of this FIP and will identify such delegation in the FIP. The Regional Administrator shall also publish an announcement of the delegation of authority agreement in local newspapers.

#### **§49.4163 General provisions.**

(a) *Definitions.* As used in §§ 49.4161 through 49.4168, all terms not defined herein shall have the meaning given them in the Act, in subpart A and subpart OOOO of 40 CFR part 60, in the Prevention of Significant Deterioration regulations at 40 CFR 52.21, or in the Federal Minor New Source Review Program in Indian Country at 40 CFR 49.151. The following terms shall have the specific meanings given them.

(1) *Bakken Pool* means Oil produced from the Bakken, Three Forks, and Sanish Formations.

(2) *Breathing losses* means natural gas emissions from fixed roof tanks resulting from evaporative losses during storage.

(3) *Casinghead natural gas* means the associated natural gas that naturally dissolves out of reservoir fluids during well completion operations and recompletion operations due to the pressure relief that occurs as the reservoir fluids travel up the well casinghead.

- (4) *Closed vent system* means a system that is not open to the atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport natural gas from a piece or pieces of equipment to a control device or back to a process.
- (5) *Enclosed combustor* means a thermal oxidation system with an enclosed combustion chamber that maintains a limited constant temperature by controlling fuel and combustion air.
- (6) *Existing facility* means an oil and natural gas production facility that begins actual construction prior to the effective date of the “Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota”.
- (7) *Flashing losses* means natural gas emissions resulting from the presence of dissolved natural gas in the produced oil and the produced water, both of which are under high pressure, that occurs as the produced oil and produced water is transferred to storage tanks or other vessels that are at atmospheric pressure.
- (8) *Modified facility* means a facility which has undergone the addition, completion, or recompletion of one or more oil and natural gas wells, and/or the addition of any associated equipment necessary for production and storage operations at an existing facility.
- (9) *New facility* means an oil and natural gas production facility that begins actual construction after the effective date of the “Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota”.
- (10) *Oil* means hydrocarbon liquids.
- (11) *Oil and natural gas production facility* means all of the air pollution emitting units and activities located on or integrally connected to one or more oil and natural gas wells that are necessary for production operations and storage operations.

- (12) *Oil and natural gas well* means a single well that extracts subsurface reservoir fluids containing a mixture of oil, natural gas, and water.
- (13) *Owner or operator* means any person who owns, leases, operates, controls, or supervises an oil and natural gas production facility.
- (14) *Permit to construct or construction permit* means a permit issued by the Regional Administrator pursuant to 40 CFR 49.151, 52.10 or 52.21, or a permit issued by a tribe pursuant to a program approved by the Administrator under 40 CFR Part 51, Subpart I, authorizing the construction or modification of a stationary source.
- (15) *Permit to operate or operating permit* means a permit issued by the Regional Administrator pursuant to 40 CFR part 71, or by a tribe pursuant to a program approved by the Administrator under 40 CFR part 51 or 40 CFR part 70, authorizing the operation of a stationary source.
- (16) *Pit flare* means an ignition device, installed horizontally or vertically and used in oil and natural gas production operations to combust produced natural gas and natural gas emissions.
- (17) *Produced natural gas* means natural gas that is separated from extracted reservoir fluids during production operations.
- (18) *Produced oil* means oil that is separated from extracted reservoir fluids during production operations.
- (19) *Produced oil storage tank* means a unit that is constructed primarily of non-earthen materials (such as steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of produced oil.
- (20) *Produced water* means water that is separated from extracted reservoir fluids during production operations.

(21) *Produced water storage tank* means a unit that is constructed primarily of non-earthen materials (such as steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of produced water.

(22) *Production operations* means the extraction and separation of reservoir fluids from an oil and natural gas well, using separators and heater-treater systems. A separator is a pressurized vessel designed to separate reservoir fluids into their constituent components of oil, natural gas and water. A heater-treater is a unit that heats the reservoir fluid to break oil/water emulsions and to reduce the oil viscosity. The water is then typically removed by using gravity to allow the water to separate from the oil.

(23) *Regional Administrator* means the Regional Administrator of EPA Region 8 or an authorized representative of the Regional Administrator.

(24) *Standing losses* means natural gas emissions from fixed roof tanks as a result of evaporative losses during storage.

(25) *Storage operations* means the transfer of produced oil and produced water to storage tanks, the filling of the storage tanks, the storage of the produced oil and produced water in the storage tanks, and the draining of the produced oil and produced water from the storage tanks.

(26) *Supervisory Control and Data Acquisition (SCADA) system* generally refers to industrial control computer systems that monitor and control industrial infrastructure or facility-based processes.

(27) *Utility flare* means thermal oxidation system using an open (without enclosure) flame. An enclosed combustor as defined in §§ 49.4161 through 49.4168 is not considered a flare.

(28) *Visible Smoke emissions* means a pollutant generated by thermal oxidation in a flare or enclosed combustor and occurring immediately downstream of the flame. Visible smoke occurring within, but not downstream of, the flame, is not considered to constitute visible smoke emissions.

(29) *Well completion* means the process that allows for the flowback of oil and natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

(30) *Well completion operation* means any oil and natural gas well completion using hydraulic fracturing occurring at an oil and natural gas production facility.

(31) *Well recompletion operation* means any oil and natural gas well completion using hydraulic refracturing occurring at an oil and natural gas production facility.

(32) *Working losses* means natural gas emissions from fixed roof tanks resulting from evaporative losses during filling and emptying operations.

(b) *Requirement for testing.* The Regional Administrator may require that an owner or operator of an oil and natural gas production facility demonstrate compliance with the requirements of the “Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota” by performing a source test and submitting the test results to the Regional Administrator. Nothing in the “Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota” limits the authority of the Regional Administrator to require, in an information request pursuant to section 114 of the Act, an owner or operator of an oil and natural gas production facility subject to the “Federal Implementation Plan for Oil and Natural Gas Production Facilities, Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation)” to demonstrate compliance by performing testing, even where the facility does not have a permit to construct or a permit to operate.

(c) *Requirement for monitoring, recordkeeping, and reporting.* Nothing in “Federal Implementation Plan for Oil and Natural Gas Production Facilities, Fort Berthold Indian Reservation (Mandan, Hidatsa



and Arikara Nation)” precludes the Regional Administrator from requiring monitoring, recordkeeping and reporting, including monitoring, recordkeeping and reporting in addition to that already required by an applicable requirement in these rules, in a permit to construct or permit to operate in order to ensure compliance.

(d) *Credible evidence*. For the purposes of submitting reports or establishing whether or not an owner or operator of an oil and natural gas production facility has violated or is in violation of any requirement, nothing in the “Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation (Mandan, Hidatsa and Arikara Nation), North Dakota” shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a facility would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

**§49.4164 Construction and operational control measures.**

(a) Each owner or operator must operate and maintain all liquid and gas collection, storage, processing and handling operations, regardless of size, so as to minimize leakage of natural gas emissions to the atmosphere.

(b) During all oil and natural gas well completion operations or recompletion operations at an oil and natural gas production facility and prior to the first date of production of each oil and natural gas well, each owner or operator must, at a minimum, route all casinghead natural gas to a utility flare or a pit flare capable of reducing the mass content of VOC in the natural gas emissions vented to it by at least 90.0 percent or greater and operated as specified in §§ 49.4165 and 49.4166.

(c) Beginning with the first date of production from any one oil and natural gas well at an oil and natural gas production facility, each owner or operator must, at a minimum, route all natural gas emissions from production operations and storage operations to a control device capable of reducing the

mass content of VOC in the natural gas emissions vented to it by at least 90.0 percent or greater and operated as specified in §§ 49.4165 and 49.4166.

(d) Within ninety (90) days of the first date of production from any oil and natural gas well at an oil and natural gas production facility, each owner or operator must:

(1) Route the produced natural gas from the production operations through a closed-vent system to:

(i) An operating system designed to recover and inject all the produced natural gas into a natural gas gathering pipeline system for sale or other beneficial purpose; or

(ii) A utility flare or equivalent combustion device capable of reducing the mass content of VOC in the produced natural gas vented to the device by at least 98.0 percent or greater and operated as specified in §§ 49.4165 and 49.4166.

(2) Route all standing, working, breathing, and flashing losses from the produced oil storage tanks and any produced water storage tank interconnected with the produced oil storage tanks through a closed-vent system to:

(i) An operating system designed to recover and inject the natural gas emissions into a natural gas gathering pipeline system for sale or other beneficial purpose; or

(ii) An enclosed combustor or utility flare capable of reducing the mass content of VOC in the natural gas emissions vented to the device by at least 98.0 percent or greater and operated as specified in §§ 49.4165(c) and 49.4166.

(iii) If the uncontrolled potential to emit VOCs from the aggregate of all produced oil storage tanks and produced water storage tanks interconnected with produced oil storage tanks at an oil and natural gas production facility is less than, and reasonably expected to remain below, 20 tons in any consecutive 12-month period, then, upon prior written approval by the EPA the owner or operator may use a pit flare,

an enclosed combustor or a utility flare that is capable of reducing the mass content of VOC in the natural gas emissions from the storage tanks vented to the device by only 90.0 percent.

(e) In the event that pipeline injection of all or part of the natural gas collected in an operating system designed to recover and inject natural gas becomes temporarily infeasible and there is no operational enclosed combustor or utility flare at the facility, the owner or operator must route the natural gas that cannot be injected through a closed-vent system to a pit flare operated as specified in §§ 49.4165 and 49.4166.

(f) Produced oil storage tanks and any produced water storage tanks interconnected with produced oil storage tanks subject to the requirements specified in 40 CFR part 60, subpart OOOO are considered to meet the requirements of § 49.4164(d)(2). No further requirements apply for such storage tanks under § 49.4164(d)(2).

**§ 49.4165 Control equipment requirements.**

(a) *Covers.* Each owner or operator must equip all openings on each produced oil storage tank and produced water storage tank interconnected with produced oil storage tanks with a cover to ensure that all natural gas emissions are efficiently being routed through a closed-vent system to a vapor recovery system, an enclosed combustor, a utility flare, or a pit flare.

(1) Each cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves (PRV), and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the produced oil and produced water in the storage tank.

(2) Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:

- (i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);
  - (ii) To inspect or sample the material in the unit; or
  - (iii) To inspect, maintain, repair, or replace equipment located inside the unit.
- (3) Each thief hatch cover shall be weighted and properly seated.
- (4) Each PRV shall be set to release at a pressure that will ensure that natural gas emissions are routed through the closed-vent system to the vapor recovery system, the enclosed combustor, or the utility flare under normal operating conditions.
- (b) *Closed-vent systems.* Each owner or operator must meet the following requirements for closed-vent systems:
- (1) Each closed-vent system must route all produced natural gas and natural gas emissions from production and storage operations to the natural gas sales pipeline or the control devices required by paragraph (a) of this section.
  - (2) All vent lines, connections, fittings, valves, relief valves, or any other appurtenance employed to contain and collect natural gas, vapor, and fumes and transport them to a natural gas sales pipeline and any VOC control equipment must be maintained and operated properly at all times.
  - (3) Each closed-vent system must be designed to operate with no detectable natural gas emissions.
  - (4) If any closed-vent system contains one or more bypass devices, except as provided for in paragraph (b)(4)(iii) of this section, that could be used to divert all or a portion of the natural gas emissions, from entering a natural gas sales pipeline and/or any control devices, the owner or operator must meet the one of following requirements for each bypass device:
    - (i) At the inlet to the bypass device that could divert the natural gas emissions away from a natural gas sales pipeline or a control device and into the atmosphere, properly install, calibrate, maintain, and

operate a natural gas flow indicator that is capable of taking continuous readings and sounding an alarm when the bypass device is open such that natural gas emissions are being, or could be, diverted away from a natural gas sales pipeline or a control device and into the atmosphere;

(ii) Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration;

(iii) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements applicable to bypass devices.

(c) *Enclosed combustors and utility flares.* Each owner or operator must meet the following requirements for enclosed combustors and utility flares:

(1) For each enclosed combustor or utility flare, the owner or operator must follow the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions;

(2) For each enclosed combustor or utility flare, the owner or operator must ensure there is sufficient capacity to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to it by at least 98.0 percent for the minimum and maximum natural gas volumetric flow rate and BTU content routed to the device;

(3) Each enclosed combustor or utility flare must be operated to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to it by at least 98.0 percent;

(4) The owner or operator must ensure that each utility flare is designed and operated in accordance with the requirements of 40 CFR 60.18(b) for such flares, except for § 60.18(c)(2) and (f)(2) for those utility flares operated with an electronically controlled automatic igniter.

(5) The owner or operator must ensure that each enclosed combustor is:

(i) A model demonstrated by a manufacturer to meet the VOC destruction efficiency requirements

of §§ 49.4161 through 49.4168 using the procedure specified in 40 CFR part 60, subpart OOOO at § 60.5413(d) by the due date of the first annual report as specified in § 49.4168(b); or

(ii) Demonstrated to meet the VOC destruction efficiency requirements of §§ 49.4161 through 49.4168 using EPA approved performance test methods specified in 40 CFR part 60, subpart OOOO at § 60.5413(b) by the due date of the first annual report as specified in § 49.4168(b).

(6) The owner or operator must ensure that each enclosed combustor and utility flare is:

(i) Operated properly at all times that produced natural gas and/or natural gas emissions are routed to it;

(ii) Operated with a liquid knock-out system to collect any condensable vapors (to prevent liquids from going through the control device);

(iii) Equipped with a flash-back flame arrestor;

(iv) Equipped with one of the following:

(A) A continuous burning pilot flame.

(B) An electronically controlled automatic igniter;

(v) Equipped with a monitoring system for continuous recording of the parameters that indicate proper operation of each enclosed combustor, utility flare, continuous burning pilot flame, and electronically controlled automatic igniter, such as a chart recorder, data logger or similar devices;

(vi) Maintained in a leak-free condition; and

(vii) Operated with no visible smoke emissions.

(d) *Pit Flares*. Each owner or operator must meet the following requirements for pit flares:

(1) The owner or operator must develop written operating instructions, operating procedures and maintenance schedules to ensure good air pollution control practices for minimizing emissions from the pit flare based on the site-specific design.

(2) The owner or operator must only use a pit flare for the following operations:

- (i) To control produced natural gas and natural gas emissions during well completion operations or recompletion operations;
  - (ii) To control produced natural gas and natural gas emissions in the event that natural gas recovered for pipeline injection must be diverted to a backup control device because injection is temporarily infeasible and there is no operational enclosed combustor or utility flare at the oil and natural gas production facility. Use of the pit flare for this situation is limited to a maximum of 500 hours in any twelve (12) consecutive months; or
  - (iii) Control of standing, working, breathing, and flashing losses from the produced oil storage tanks and any produced water storage tank interconnected with the produced oil storage tanks if the uncontrolled potential VOC emissions from the aggregate of all produced oil storage tanks and produced water storage tanks interconnected with produced oil storage tanks is less than, and reasonably expected to remain below, 20 tons in any consecutive 12-month period.
- (3) The owner or operator must only use the pit flare under the following conditions and limitations:
- (i) The pit flare is operated to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to it by at least 90.0 percent;
  - (ii) The pit flare is operated in accordance with the site-specific written operating instructions, operating procedures, and maintenance schedules to ensure good air pollution control practices for minimizing emissions;
  - (iii) The pit flare is operated with no visible smoke emissions;
  - (iv) The pit flare is equipped with an electronically controlled automatic igniter;
  - (v) The pit flare is visually inspected for the presence of a flame anytime produced natural gas or natural gas emissions are being routed to it. Should the flame fail, the flame must be relit as soon as safely possible and the electronically controlled automatic igniter must be repaired or replaced before

the pit flare is utilized again; and

(vi) The owner or operator does not deposit or cause to be deposited into a flare pit any oil field fluids or oil and natural gas wastes other than those designed to go to the pit flare.

(e) *Other Control Devices.* Upon prior written approval by the EPA, the owner or operator may use control devices other than those listed above that are determined by EPA to be capable of reducing the mass content of VOC in the natural gas routed to it by at least 98.0 percent, provided that:

(1) In operating such control devices, the owner or operator must follow the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions; and

(2) The owner or operator must ensure there is sufficient capacity to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to such other control devices by at least 98.0 percent for the minimum and maximum natural gas volumetric flow rate and BTU content routed to each device.

(3) The owner or operator must operate such a control device to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to it by at least 98.0 percent.

**§ 49.4166 Monitoring requirements.**

(a) Each owner and operator must measure the barrels of oil produced at the oil and natural gas production facility each time the oil is unloaded from the produced oil storage tanks using the methodologies of tank gauging or positive displacement metering system, as appropriate, as established by the US Department of the Interior's Bureau of Land Management at 43 CFR part 3160, in the "Onshore Oil and Gas Operations; Federal and Indian Oil & Gas Leases; Onshore Oil and Gas Order No. 4; Measurement of Oil".

(b) Each owner or operator must monitor the hours that each pit flare is operated to control produced



natural gas and natural gas emissions in the event that natural gas recovered for pipeline injection must be diverted to a backup control device because injection is temporarily infeasible and there is no enclosed combustor or utility flare at the oil and natural gas production facility.

(c) Each owner or operator must monitor the volume of produced natural gas sent to each enclosed combustor, utility flare, and pit flare at all times. Methods to measure the volume include, but are not limited to, direct measurement and gas-to-oil ratio (GOR) laboratory analyses.

(d) Each owner or operator must monitor the volume of standing, working, breathing, and flashing losses from the produced oil and produced water storage tanks sent to each vapor recovery system, enclosed combustor, utility flare, and pit flare at all times. Methods to measure the volume include, but are not limited to, direct measurement or GOR laboratory analyses.

(e) Each owner or operator must perform quarterly visual inspections of tank thief hatches, covers, seals, PRVs, and closed vent systems to ensure proper condition and functioning and repair any damaged equipment. The quarterly inspections must be performed while the produced oil and produced water storage tanks are being filled.

(f) Each owner or operator must perform quarterly visual inspections of the peak pressure and vacuum values in each closed vent system and control system for the produced oil and produced water storage tanks to ensure that the pressure and vacuum relief set-points are not being exceeded in a way that has resulted, or may result, in venting and possible damage to equipment. The quarterly inspections must be performed while the produced oil and produced water storage tanks are being filled.

(g) Each owner or operator must monitor the operation of each enclosed combustor, utility flare, and pit flare to confirm proper operation as follows:

(1) Continuously monitor all variable operational parameters specified in the written operating instructions and procedures, including continuous burning pilot flame, electronically controlled

automatic igniters, and monitoring system failures, using a malfunction alarm and remote notification system, where such systems are available, or continuously monitor under an equivalent alternative protocol upon prior written approval by the EPA;

(2) Perform a physical inspection of all equipment associated with each enclosed combustor, utility flare, and pit flare each time an operator is on site, at a minimum quarterly, to ensure system integrity;

(3) Monitor for visible smoke during operation of any enclosed combustor, utility flare or pit flare each time an operator is on site, at a minimum quarterly. Upon observation of visible smoke, use EPA Reference Method 22 of 40 CFR part 60, Appendix A, to determine whether visible smoke emissions are present. The observation period shall be 2 hours. Visible smoke emissions are present if smoke is observed for more than 5 minutes in any 2 consecutive hours; and

(4) Respond to any observation of any continuous burning pilot flame failure, electronically controlled automatic igniter failure, or improper monitoring equipment operation and ensure the equipment is returned to proper operation as soon as practicable and safely possible after an observation or an alarm sounds.

(h) Where sufficient to meet the monitoring and recordkeeping requirements in §§ 49.4166 and 49.4167, the owner or operator may use a Supervisory Control and Data Acquisition (SCADA) system to monitor and record the required data in §§ 49.4161 through 49.4168.

(i) Other Monitoring Options. The owner or operator may use equivalent methods of monitoring other than those listed above upon prior written approval by the EPA.

#### **§ 49.4167 Recordkeeping requirements.**

(a) Each owner or operator must maintain the following records:

(1) The measured barrels of oil produced at the oil and natural gas production facility each time the oil is unloaded from the produced oil storage tanks;

- (2) The volume of produced natural gas sent to each enclosed combustor, utility flare, and pit flare at all times;
- (3) The volume of natural gas emissions from the produced oil storage tanks and produced water storage tanks sent to each enclosed combustor, utility flare, and pit flare at all times;
- (4) A summary of each oil and natural gas well completion operation and recompletion operation at an oil and natural gas production facility. Each summary shall include:
  - (i) The latitude and longitude location of the oil and natural gas well in decimal format;
  - (ii) The date, time, and duration in hours of flowback from the oil and natural gas well;
  - (iii) The date, time, and duration in hours of any venting of casinghead natural gas from the oil and natural gas well; and
  - (iv) Specific reasons for each instance of venting in lieu of capture or combustion.
- (5) For each enclosed combustor, utility flare, and pit flare at an oil and natural gas production facility:
  - (i) Written, site-specific designs, operating instructions, operating procedures and maintenance schedules;
  - (ii) Records of all required monitoring of operations;
  - (iii) Records of any deviations from the operating parameters specified by the written site-specific designs, operating instructions, and operating procedures. The records must include the enclosed combustor, utility flare, or pit flare's total operating time during which a deviation occurred, the date, time and length of time that deviations occurred, and the corrective actions taken and any preventative measures adopted to operate the device within that operating parameter;
  - (iv) Records of any instances in which the pilot flame is not present, electronically controlled automatic igniter is not functioning, or the monitoring equipment is not functioning in the enclosed combustor, the utility flare, or the pit flare, the date and times of the occurrence, the corrective actions taken, and any

preventative measures adopted to prevent recurrence of the occurrence;

(v) Records of any instances in which a recording device installed to record data from the enclosed combustor, utility flare, or pit flare is not operational; and

(vi) Records of any time periods in which visible smoke emissions are observed emanating from the enclosed combustor, utility flare, or pit flare.

(6) For each pit flare at an oil and natural gas production facility, a demonstration of compliance with the use restrictions set forth in § 49.4165(d)(2)(ii) is made by keeping records in a log book, or similar recording system, during each period of time that the pit flare is operating. The records must contain the following information:

(i) Date and time the pit flare was started up and subsequently shut down;

(ii) Total hours operated when pipeline injection was temporarily infeasible for the current calendar month plus the previous consecutive eleven (11) calendar months; and

(iii) Brief descriptions of the justification for each period of operation.

(7) Records of any instances in which any closed-vent system or control device was bypassed or down, the reason for each incident, its duration, the volume of natural gas emissions released, and the corrective actions taken and any preventative measures adopted to avoid such bypasses or downtimes; and

(8) Documentation of all produced oil storage tank and produced water storage tank inspections required in § 49.4166(e) and (f). All inspection records must include, at a minimum, the following information:

(i) The date of the inspection;

(ii) The findings of the inspection;

(iii) Any adjustments or repairs made as a result of the inspections, and the date of the adjustment or

repair; and

(iv) The inspector's name and signature.

(b) Each owner or operator must keep all records required by this section onsite at the facility or at the location that has day-to-day operational control over the facility and must make the records available to the EPA upon request.

(c) Each owner or operator must retain all records required by this section for a period of at least five (5) years from the date the record was created.

**§ 49.4168 Notification and reporting requirements.**

(a) Each owner or operator must submit any documents required under this section to: U.S.

Environmental Protection Agency, Region 8 Office of Enforcement, Compliance & Environmental Justice, Air Toxics and Technical Enforcement Program, 8ENF-AT, 1595 Wynkoop Street, Denver, Colorado 80202. Documents may be submitted electronically to [r8airreportenforcement@epa.gov](mailto:r8airreportenforcement@epa.gov).

(b) Each owner and operator must submit an annual report containing the information specified in paragraphs (b)(1) through (4) of this section. Each annual report is due August 15<sup>th</sup> every year and must cover all information for the previous calendar year. The initial report must cover the cumulative information for that year. If you own or operate more than one oil and natural gas production facility, you may submit one report for multiple oil and natural gas production facilities provided the report contains all of the information required as specified in paragraphs (b)(1) through (4) of this section. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. The EPA may approve a common schedule on which reports required by §§ 49.4161 through 49.4168 may be submitted as long as the schedule does not extend the reporting period.

(1) The company name and the address of the oil and natural gas production facility or facilities.

(2) An identification of each oil and natural gas production facility being included in the annual report.

- (3) The beginning and ending dates of the reporting period.
- (4) For each oil and natural gas production facility, the information in paragraphs (b)(4)(i) through (iv) of this section.
- (i) A summary of all required records identifying each oil and natural gas well completion or recompletion operation for each oil and natural gas production facility conducted during the reporting period;
- (ii) An identification of the first date of production for each oil and natural gas well at each oil and natural gas production facility that commenced production during the reporting period; and
- (iii) A summary of cases where construction or operation was not performed in compliance with the requirements specified in § 49.4164, § 49.4165, or § 49.4166 for each oil and natural gas well at each oil and natural gas production facility, and the corrective measures taken.
- (iv) A certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

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